

# *The Law on the Regulation of Nuclear Source Material, Nuclear Fuel Material and Reactors<sup>1</sup>*

## *(1) The Law on the Regulation of Nuclear Source Material, Nuclear Fuel Material and Reactors*

*(Excerpt)*

*(Law No. 166, June 10, 1957)*

*(Latest Revision: Law No. 179, December 18, 2002)*

(Objectives)

**Article 1.** This Law, in accordance with the spirits of the Atomic Energy Basic Law (Law No. 186, 1955), is enacted for the purposes of providing the necessary regulations on the refining business, the fabricating business, the storage business, the reprocessing business and the waste disposal business, as well as on the establishment and operation of reactors, and also for the purpose of providing necessary regulations on the uses of internationally regulated substances to execute the agreements or other international arrangements concerning the research, development and use of atomic energy, in order to ensure that the uses of nuclear source material, nuclear fuel material and reactors are limited to peaceful ones and carried out in a planned manner, and at the same time, to ensure the public safety by preventing the hazards due to these materials and reactors and protecting nuclear fuel material.

### **(3) Regulations concerning nuclear fuel fabrication business**

(Licensing for business)

**Article 13.** Any person who wishes to operate a nuclear fuel fabrication business shall obtain the license of the Minister of Economy Trade and Industry as provided for in the government ordinance. (Omitted)

(Pre-service Inspection)

#### **Article 16-3.**

**3.** The Minister of Economy, Trade and Industry (hereinafter referred to as "the Minister of METI") shall, as provided by the Ordinance of Ministry of Economy, Trade and Industry (hereinafter referred to as "Ministry of Economy, Trade and Industry"), make the Japan Nuclear Energy Safety Organization (hereinafter referred to as "the Organization") to perform a part of affairs concerning inspections described in Paragraph 1.

**4.** When the Organization performed a part of affairs concerning the inspection under the provisions of the preceding paragraph, the Organization shall promptly, as provided by the Ordinance of Ministry of Economy, Trade and Industry, notify the Minister of Economy, Trade and Industry of the results of inspection.

Chapter 4 Regulations Concerning Establishment, Operation, etc. of Nuclear Reactors

(Periodic Inspection of Facility)

#### **Article 16-5.**

**3.** The Minister of METI shall, as provided by the Ordinance of Ministry of Economy, Trade and Industry (hereinafter referred to as "Ministry of Economy, Trade and Industry"), make the Organization to perform a part of affairs concerning inspections described in Paragraph 1.

**4.** When the Organization performed a part of affairs concerning the inspection under the provisions of the preceding paragraph, the Organization shall promptly, as provided by the Ordinance of Ministry of Economy, Trade and Industry, notify the Minister of Economy, Trade and Industry of the results of inspection.

Chapter 4 Regulations Concerning Establishment, Operation, etc. of Nuclear Reactors

(Licensing for Establishment)

**Article 23.** Any person who wishes to establish a nuclear reactor shall obtain the license of the Minister as provided for in the government ordinance in accordance with the classification of nuclear reactors set out in the following subparagraphs:

(i) Nuclear reactors for the purpose of electrical generation (to the exclusion of those coming under any of the following three subparagraphs; hereinafter referred to as "commercial power reactors"): Minister of Economy, Trade and Industry;

(iv) Nuclear reactors for the purpose of electrical generation as specified by government ordinance as reactors in the stage of research and development: Minister of Economy, Trade and Industry;

**2.** Any person who wishes to obtain the license under the preceding paragraph shall present to the competent minister (minister specified in the government ordinance in accordance with the classification of nuclear reactors in the preceding paragraph) an application containing the following items:

(i) The name and the address and, in case of a juridical person, the name of its representative;

(i) The purpose for which reactors are to be used;

(ii) The type, the thermal power and the number of reactors;

(iii) The name and the address of the factory or the place of business where reactors are to be established;

(iv) The location, structure and equipment of reactors and their attached facilities (hereinafter referred to as "reactor facilities");

(v) The construction plan of reactor facilities;

(vi) The type of nuclear fuel material to be used in reactors and the annual amount scheduled for use; and

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<sup>1</sup> Source: IRRS Mission in 2007

(vii) The method of disposal of spent fuel.

3. The Minister of Economy, Trade and Industry plans to enact, amend or repeal the Government ordinance relating to subparagraph (iv) of paragraph 1, they must hear and pay due respect, in advance, to the opinions of the Atomic Energy Commission and the Nuclear Safety Commission.

**Article 24.** When an application for the license under Paragraph 1 of the Article 23 is rendered, the competent minister shall not give the license unless he recognizes that the application comes under each of the following subparagraphs:

(viii) That reactors will not be used for non-peaceful purposes;

(ix) That the license will cause no hindrance to the planned development and utilization of atomic energy;

(x) That the applicant (including the shipbuilding business operator, if the reactor is to be installed in a ship) has technical ability and financial position sound enough to establish reactors, and has such technical ability as to operate them competently; and

(xi) That the location, structure and equipment of reactor facilities are such that they will cause no hindrance to the prevention of the hazard by nuclear fuel material (including spent fuel, and so in the following), by materials contaminated by nuclear fuel material (including fission products, and so in the following) and by reactors.

2. In giving license under Paragraph 1 of the preceding Article, the competent minister shall hear and respect, in advance, the opinion of the Atomic Energy Commission with respect to the application of standards specified in Subparagraph (i), Subparagraph (ii) and Subparagraph (iii) (regarding the portion related to the financial position only) of the preceding paragraph, and the opinion of the Nuclear Safety Commission with respect to the application of standards specified in Subparagraph (iii) (regarding the portion related to the technical ability only) and Subparagraph (iv) of the said paragraph.

(Ineligibility for the License)

**Article 25.** No person who comes under one of the following subparagraphs shall be given the license under Article 23, Paragraph 1:

(i) A person whose license under Article 23, Paragraph 1 has been cancelled as provided in the rule of Article 33, Paragraph 2 and whom two years have not yet elapsed from the day of the cancellation;

(ii) A person who has been condemned to the penalty heavier than the fine for violation of the rules of this Law or the Orders based on this Law, and for whom two years have not yet elapsed after having executed or suspended to execute the penalty;

(iii) A legally incompetent person; and

(iv) A juridical person any of whose executive officers comes under one of the preceding subparagraphs.

(License and Report of the Change, Etc.)

**Article 26.** When a reactor establisher wishes to change any matter provided in Article 23, Paragraph 2, Subparagraph (ii), Subparagraph (iii), Subparagraph (iv), Subparagraph (v) or Subparagraph (viii), he shall obtain the permission of the competent minister, as provided by the government ordinance provided that this is not applicable to the case provided in Subparagraph (iv) of the said paragraph, where only the name of a factory or a place of business is to be changed.

2. When a reactor establisher has changed any matter provided for in Article 23, Paragraph 2, Subparagraph (i), Subparagraph (vi) or Subparagraph (vii), except case provided for in Article 32, Paragraph 1, he shall report the change to the competent minister within thirty days of the day of the change. This shall also apply to the matters provided for in Subparagraph (iv) of the said paragraph, where only the name of a factory or a place of business has been changed.

4. The provisions of Article 24 shall apply mutatis mutandis to the permission under Paragraph 1.

(Approval of Design and Construction Methods)

**Article 27.** Any reactor establisher shall, as provided by the order of competent ministry, (the order issued by competent minister: same as in this chapter) obtain the permission of the competent minister, with respect to the design and method of construction of the reactor facilities (except for welding in the reactor facilities defined in Article 28-2, Paragraph 1 in which welding is performed, same in the following paragraph and Paragraph 3) before starting of the construction. This shall also apply to the alteration of the reactor facilities.

2. When any reactor establisher wishes to change the design and method of construction of the reactor facilities for which the approval provided on the preceding paragraph has been obtained, they shall obtain the approval of the competent minister, as provided by the order of the competent ministry; this shall not apply to any of the minor changes provided by the order of the competent ministry.

3. The competent minister shall give the approval provided for in the preceding two paragraphs, if he recognizes that the design and method of construction relevant to the application for approval provided for in the preceding two paragraphs satisfy each of the following subparagraphs:

(i) The design and method of construction have been given approval based on Article 23, Paragraph 1 or Article 26, Paragraph 1 or have been reported according to the provisions of Paragraph 2 of the said article; and

(ii) The design and method of construction are in conformity with the technical standards defined by the order of the competent ministry.

(Pre-service Inspection)

**Article 28.** Any reactor establisher shall not use reactor facilities until they have been put successfully through the inspection of the competent minister as to the construction work (except for welding in the reactor facilities defined in Article 28-2, Paragraph 1 in which welding is performed - same in the following paragraph) and

performance of the reactor facilities, as provided by the order of the competent ministry. The same apply to the reactor facilities when they are altered.

2. The performance inspection is considered as passed when the reactor facilities conform to each of the following subparagraphs:

- (i) That the construction work has been done in accordance with the design and methods of construction provided for in the preceding Article; and
- (ii) That the performance is, in accordance with the technical standards provided by the order of the competent ministry.

(Method of Welding and Inspection)

**Article 28-2.** A reactor vessel and other reactor facility in which welding is performed shall be inspected by the competent minister specified by the order of the competent ministry, and the reactor establisher may not use the reactor facility until it passes the inspection. However, this shall not be applied to the cases specified in Paragraph 4 and the cases specified by the order of the competent ministry.

2. A person who wishes to receive the inspection mentioned in the above paragraph, he must obtain the approval of the competent minister concerning the method of welding according to the order of the competent ministry.

3. The inspection mentioned in paragraph 1 shall be considered as passed if the welding satisfies each of the following subparagraphs:

- (i) That the welding has been carried out according to the method approved as provided for in the previous paragraph; and
- (ii) That the welding is in conformity with the technical standards defined by the order of the competent ministry.

4. The reactor facility involving welding defined in Paragraph 1, which has been imported, shall be inspected by the competent minister concerning welding specified by the order of the competent ministry, and the establisher may not use the reactor facility until it passes the inspection.

5. The inspection mentioned in the preceding paragraph shall be considered as passed if the welding is in conformity with the technical standards mentioned in item 2 of Paragraph 3.

(Periodic Inspection of Installation)

**Article 29.** Any reactor establisher shall, according to the order of the competent ministry, submit those reactor facilities designated by government ordinance to the annual inspection of the competent minister that is made regularly once a year.

2. The Periodic inspection provided for in the preceding paragraph shall be made as to whether or not the performance of the reactor facilities is up to the technical standards provided by the order of the competent ministry.

3. The provisions described in Article 16-5, Paragraphs 3 and Paragraph 4 shall be applied with necessary modifications to the inspection described in Paragraph 1 (limited to those relevant to commercial power reactors or reactors described in Article 23, Paragraph 1, Subparagraph (iv)).

(Operation Plan)

**Article 30.** As provided by the order of the competent ministry (ministry of education, culture, sport, science and technology for the nuclear reactor as defined by Article 23, paragraph 1, item 3 with the purpose of electrical generation and ministry of economy, trade and industry), any reactor establisher is required to draw up a plan for the operation of the nuclear reactor which he establishes, and submit it to the competent minister (Minister of education, culture, sport, science and technology for the nuclear reactor as defined by Article 23, Paragraph 1, item 3 with the purpose of electrical generation and Minister of economy, trade and industry). The same applies to the case when the plan is modified.

(Merger)

**Article 31.** In case of a merger of juridical persons who are reactor establishers (except in case of a merging a juridical person who is a reactor establisher with a juridical person who is not a reactor establisher, with where the juridical person who is a reactor establisher continues to exist), when the approval of the competent minister has been obtained for the merger, the juridical person who is to continue to exist after the merger, or the juridical person who has been establisher by the merger shall succeed to the status of the reactor establisher.

2. The provisions of Article 24, Paragraph 1, Subparagraph (i), Subparagraph (ii) and Subparagraph (iii) and Paragraph 2, and Article 25 shall apply mutatis mutandis to the permission as provided in the preceding paragraph.

(Inheritance)

**Article 32.** In case of an inheritance with regard to a reactor establisher, the inheritor shall succeed to the status of the reactor establisher.

2. The inheritor who has succeed to the status of the reactor establisher described in the preceding paragraph, shall report the inheritance to the competent minister with the documents to prove the inheritance within thirty days of the day of the inheritance.

(Cancellation of the License, Etc.)

**Article 33.** When a reactor establisher does not begin reactor operation without justifiable reason within the period as provided in the order of competent ministry, or continuously suspended reactor operation of one year or more, the competent minister may cancel the license as provided in Article 23, Paragraph 1.

2. When a reactor establisher comes under one of the subparagraphs, the competent minister may cancel the license under Article 23, Paragraph 1 or order the suspension of operation for a period not exceeding one year:

- (i) When a reactor establisher comes under one of the Subparagraph (ii), Subparagraph (iii), and Subparagraph (iv) of

- Article 25;
- (ii) When he has changed the items for which he should have obtained the license specified in the provisions of Article 26, Paragraph 1 without the license;
  - (iii) When he violated the order based on the rules of Article 36;
  - (iv) When he has violated the rules of Article 37, Paragraph 1 or Paragraph 4, or the order based on the provisions of Paragraph 3 of the said Article;
  - (v) When he has violated the order based on the rules of Article 43;
  - (vi) When he has violated the provisions as provided in Article 43-2, Paragraph 1;
  - (vii) When he has violated the order provided in Article 12-2, Paragraph 3 that is applied mutatis mutandis to Article 43-2, Paragraph 2; or
  - (viii) When he has violated the provisions of Article 12-2, Paragraph 4 that is applied mutatis mutandis to Article 43-2, Paragraph 2.
  - (ix) When he has violated the provisions of Article 43-3, Paragraph 1.
  - (x) When he has violated the order provided in Article 12-5 that is applied mutatis mutandis to Article 43-3, Paragraph 2.
  - (xi) When he has violated the provisions of Article 58-2, Paragraph 2, or the order provided in Paragraph 3 of the said article.
  - (xii) When he has violated the provisions of Article 59-2, Paragraph 2, or the order provided in Paragraph 4 of the said Article.
  - (xiii) When he has violated the provisions of Article 59-3, Paragraph 2.
  - (xiv) When he has violated the provisions of Article 61-8, Paragraph 1 or Paragraph 4, or the order provided in Paragraph 3 of the said article.
  - (xv) When he has violated the condition as provided in Article 62, Paragraph 1 or Paragraph 2.
  - (xvi) When he has violated the provisions of Article 6 of the Law on Compensation for Nuclear Damage.
  - (xvi-2) When he has violated the order provided in Article 7, Paragraph 4, Article 8, Paragraph 5, Article 9, Paragraph 7 or Article 11, Paragraph 6 of the Special Law for Nuclear Emergency.

(Records)

**Article 34.** Any reactor establisher shall, as provided by the order of the competent ministry, record items provided by the order of the competent ministry concerning the operation of the reactor and other uses of the reactor facilities, and keep this record at the factory or the place of business.

(Measures for Safety Preservation and the Protection of Specified Nuclear Fuel Material)

**Article 35.** Any reactor establisher or foreign nuclear ship operator shall, as provided by the order of the competent ministry, take necessary safety preservation measures concerning the following items:

- (i) Maintenance of reactor facilities;
- (ii) Operation of reactors; and
- (iii) Transportation, storage or disposition of nuclear fuel material or material contaminated by nuclear fuel material. (Transportation and disposition shall be restricted to transportation and disposition to be carried out in the factory or the place of business where reactor facilities are installed. The same applies to Paragraph 1 of the following Article).

2. Any reactor establisher, when disposing of nuclear fuel material or material contaminated by nuclear fuel material outside the factory or the place of business where reactor facilities are installed, shall take the necessary measures for safety preservation, as provided by the order of the competent ministry.

(Suspension of the Use of Facilities, Etc.)

**Article 36.** When the competent minister recognizes that the performance of reactor facilities is not in conformity with the technical basis provided for in Article 29, Paragraph 2, or the measures for the maintenance of reactor facilities, or the operation of reactors, or the transportation, storage or disposal of nuclear fuel material or material contaminated by nuclear fuel material, are in violation of the provisions of the order of the competent ministry or ministry of land and transportation based on the rules of Paragraph 1 of the preceding Article, he may order any reactor establisher to suspend use, to remodel, to repair or to change the location of reactor facilities, or to take necessary safety preservation measures such as the designation of the method of operation of reactors.

2. When the competent minister recognizes that measures for the physical protection are in violation of the order of the competent minister based on Paragraph 2 of the preceding Article, he may order the reactor establisher to take remedial measures.

(Operational Safety Program)

**Article 37.** Any reactor establisher shall, as provided by the order of the competent ministry, lay down the Operational Safety Program (including the rules on the safety education on operation of the reactor, the same as in this article) and obtain the approval of the competent minister before starting the operation of reactors. This shall also apply to the alteration of it.

2. The competent minister shall not give the approval under the preceding paragraph, when he deems that the safety regulations is not sound enough to prevent accidents by nuclear fuel material, material contaminated by nuclear fuel material or reactors.

3. When the competent minister deems it necessary to prevent accidents by nuclear fuel material, material contaminated by nuclear fuel material, or reactors, he may order any reactor establisher to alter their Operational Safety Program.

4. Any reactor establisher and employees of them shall observe the Operational Safety Program.

5. Any reactor establisher shall, according to the order of the competent ministry, be inspected regularly by the competent minister of the compliance to the requirement of the preceding paragraph

(Decommissioning of Reactors)

**Article 38.** When any reactor establisher (including person who is provided for in Article 66 Paragraph 1 and so in the next paragraph) wishes to dismantle reactors, they shall, as provided by the order of the competent ministry, report to the competent minister in advance.

2. When the report described in the preceding paragraph is made, the competent minister may, if he deems it necessary, designate the method of dismantling reactors or order any reactor establisher to eliminate the contamination by nuclear fuel material or to take other necessary measure to prevent accidents by nuclear fuel material, material contaminated by nuclear fuel material or reactors.

(Transfer of Reactors)

**Article 39.** Any person who wishes to receive reactors or whole facilities including reactors from any reactor establisher shall obtain the permission of the competent minister, as provided by government ordinance.

3. The rules of Article 24 and Article 25 shall apply mutatis mutandis to the permissions under the two preceding paragraphs.

4. A person who, with the permission under Paragraph 1, has received reactors or whole facilities including reactors from a reactor establisher shall succeed to the status of the reactor establisher with respect to the reactors.

(Chief Engineer of Reactors)

**Article 40.** Any reactor establisher shall, as provided by the order of the competent ministry, appoint the chief engineer of reactors among the persons who have a certificate of the chief engineer of reactors described in Paragraph 1 of the following article, to make him supervise safety preservation concerning the operation of reactors.

2. Any reactor establisher have assignment the chief engineer of reactors described in the provisions of the preceding paragraph, they shall report the notification to the competent minister within thirty days of the day of the notification. This shall also apply to the dismissal of him.

(Certificate for the Chief Engineer of Reactors)

**Article 41.** The Minister of Education, Culture, Sports, Science and Technology and the Minister of Economy, Trade and Industry shall grant a certificate of the chief engineer of reactors to a person who comes under one of the following subparagraphs:

(i) A person who has passed the qualification test of the chief engineer of reactors executed by the Minister of Education, Culture, Sports, Science and Technology and the Minister of Economy, Trade and Industry; or

(ii) A person whom Minister of Education, Culture, Sports, Science and Technology and the Minister of Economy, Trade and Industry recognize as provided by the government ordinance, to have knowledge and experience equal to or more than those person provided for in the preceding paragraph.

2. The Minister of Education, Culture, Sports, Science and Technology and the Minister of Economy, Trade and Industry may not to grant a certificate for the chief engineer of reactors to a person who comes under one of the following subparagraphs.

(i) A person who has been ordered to return his certificate of the chief engineer of reactors provided for in the provisions of the following paragraph, and for whom one year has not yet elapsed from the day ordered to return; or

(ii) A person who has been condemned to the penalty heavier than the fine for violation of the rules of this Law or the order based on this Law, or has been executed the penalty or suspended the execution of it, and for whom two years have not yet elapsed after having executed or suspended to execute the penalty.

3. When a person who has been granted a certificate of the chief engineer of reactors has violated the rule of this Law or the order on this Law, The Minister of Education, Culture, Sports, Science and Technology and the Minister of Economy, Trade and Industry may order him to return his certificate.

4. The subjects, the procedures or other details of the qualification test for the chief engineer of reactors provided for in Paragraph 1, Subparagraph (i), and the procedure for granting and returning certificate of the chief engineer of reactors shall be provided by the order of Ministry of Education, Culture, Sports, Science and Technology and Ministry of Economy, Trade and Industry.

(Duties of the Chief Engineer of Reactors, Etc.)

**Article 42.** The chief engineer of reactors shall be faithful in the discharge of his duties.

2. Any person who is engaged in the operation of reactor shall obey the instructions for the safety preservation given by the chief engineer of reactors.

(Order to Dismiss the Chief Engineer of Reactors)

**Article 43.** When the chief engineer of reactors has violated the rules of this Law or the order based on this Law, the competent minister may order any reactor establisher to dismiss him.

(Welding Inspection Performed by the Organization)

**Article 61-24.** The Minister of Economy, Trade and Industry shall make the Organization to perform the inspection described in Article 16-4, Paragraph 1 and Paragraphs 4, Article 28-2, Paragraph 1 and Paragraph 4 (limited to the portion related to commercial power reactors and reactors described in Article 23, Paragraph 1, Subparagraph (iv) and the associated facilities).

(Conditions of the Authorization or the License)

**Article 62.** Except as established in the following paragraphs, the conditions may be attached to the authorization or the license provided by this Law.

2. In the licensing of Paragraph 1, Article 23, necessary condition to observe international commitment in relation to the limitation of utilization and transfer of international restricted material may be attached.

3. The conditions of the preceding two paragraphs shall be confined to the minimum necessary to ensure the enforcement of the items concerning the authorization or the license, and shall not be such that they may obligate unreasonably the persons who wish to obtain the authorization or license.

(Emergency Measures)

**Article 64.** With respect to the nuclear fuel material, the material contaminated with nuclear fuel material or the reactor which is possessed by a reactor establisher, a business operator, etc., (hereinafter referred to as "business operators" in this Article), and any person who has been entrusted with transportation or storage by those persons, when there is a possibility of accident by nuclear fuel material, material contaminated with nuclear fuel material or a reactor through earthquake, fire or any other disaster, or when such accident has actually occurred, they shall take the emergency measures at once, as provided by the order of the competent ministry.

2. Any person who has discovered the situation provided for in the preceding paragraph shall inform it to a police officer or a maritime safety official.

3. When the Minister of Economy, Trade and Industry considers it urgently necessary for the purpose of preventing hazards due to nuclear fuel material, the material contaminated with nuclear fuel material or reactors, in the case stated in Paragraph 1, he may order such persons as mentioned in the said paragraph, in accordance with the division of business operators mentioned in the following items, to suspend the use of reactor facilities; to change the place where nuclear fuel material or the material contaminated with nuclear fuel material is located; or to take other measures necessary to prevent hazards from nuclear fuel material, the material contaminated with nuclear fuel material or reactors.

(Cancellation of the Authorization or the License, Measures Taken in Consequent of the Discontinuance of Business, Etc.)

**Article 66.** A reactor establisher whose authorization has been cancelled, in accordance with the provisions of Article 33 shall, as provided by the order of the competent ministry, take measures to transfer nuclear fuel material to eliminate contamination with nuclear fuel material or to dispose of nuclear fuel material or the material contaminated with nuclear fuel material, or to transfer internationally regulated substances (except nuclear fuel material).

4. When the competent minister recognizes that the measures taken by the persons defined in Article 4, Paragraph 1 shall not be appropriate, he may order the persons defined in said paragraph to take the following measures:

(i) Measures necessary for the prevention of hazards due to nuclear fuel material, the material contaminated with nuclear fuel material or reactors.

(Notification of Termination of Business)

**Article 65.** When a reactor establisher discontinues operation of reactors relevant to the concerned license, he shall notify the discontinuance to the competent minister as provided in the Ordinance of the competent ministry.

(Cancellation of the Authorization or the License, Measures Taken in Consequent of the Termination of Business, Etc.)

**Article 66.** A reactor establisher whose authorization has been cancelled, in accordance with the provisions of Article 33 shall, as provided by the order of the competent ministry, take measures to transfer nuclear fuel material to eliminate contamination with nuclear fuel material or to dispose of nuclear fuel material or the material contaminated with nuclear fuel material, or to transfer internationally regulated substances (except nuclear fuel material).

4. When the competent minister recognizes that the measures taken by the persons defined in of Article 4, Paragraph 1 shall not be appropriate, he may order the persons defined in said paragraph to take the following measures:

(i) Measures necessary for the prevention of hazards due to nuclear fuel material, the material contaminated with nuclear fuel material or reactors.

(Rule for Affairs)

**Article 66-2.** The Organization shall define rules for implementation of affairs (hereinafter referred to as "rules of affairs") of inspection etc. (which means inspections and verifications, as well as a part of affairs concerning inspections and verifications, described in the following subparagraphs, the same shall be applied, hereinafter.) before starting business concerning affairs of inspection etc., and shall notify this to the minister as provided in the subparagraph concerned (hereinafter referred to as "the competent minister" in this Article and Article 68-2). The same shall be applied when the Organization intends to modify them.

(i) A part of affairs concerning inspections provided in Article 16-3, Paragraph 3 (including the case where the said paragraph is applied with necessary modifications to Article 28, Paragraph 3) and Article 16-5, Paragraph 3 (including the case where the said paragraph is applied with necessary modifications to Article 29, Paragraph 3); The Minister of Economy, Trade and Industry

(ii) Inspections provided in Article 61-24, Paragraph 1; The Minister of Economy, Trade and Industry

2. The competent minister may order to modify the rules of affairs concerning notification provided in the preceding paragraph where the minister deems the said rules of affairs is not in conformity to perform the affairs of inspection etc. appropriately and assuredly.

3. Items to be defined in the rules of affairs shall be provided by the order of competent ministry (which means the order by the competent minister, the same shall be applied to the following article).

(Persons to Perform the Affairs of Inspection etc.)

**Article 66-3.** When the Organization performs the affairs of inspection etc., the Organization shall make the qualified person provided by the order of competent ministry to perform the said affairs

(Allegation to Competent Minister etc.)

**Article 66-4.** The employee of reactor establisher or radioactive disposal business operator may allege the fact of violation when any reactor establisher violates the law or the order based on the law to competent minister or nuclear safety commission.

2. The reactor establisher or radioactive disposal business operator shall not dismiss or act against him for his allegation.

(Collection of Reports)

**Article 67.** The Minister of Economy, Trade and Industry or public safety commissions of prefectures may request reactor establisher or radioactive disposal business operator, as far as necessary for the enforcement of this Law, to produce reports on his operations, as provided by the government ordinance, in accordance with the division of business operators listed in the items of Article 64, Paragraph 3.

2. Other than the request of the report as provided in the previous paragraph, Minister of Economy, Trade and Industry may request reactor establisher or radioactive disposal business operator, as far as necessary for the enforcement of this Law, to produce reports on his maintenance and inspection activity done to his facility, as recognized as necessary to prevent the hazards due to reactor, nuclear fuel material and material contaminated with nuclear fuel.

3. The Minister of Economy, Trade and Industry may, as far as necessary for the enforcement of this Law, make the Organization to submit reports concerning their business in accordance with divisions of affairs of inspection etc. described in subparagraphs of Article 66-2, Paragraph 1.

(Nuclear Facility Inspector and Nuclear Safety Inspector)

**Article 67-2.** Nuclear Facility Inspectors and Nuclear Safety Inspectors are assigned the Ministry of Economy, Trade and Industry.

2. Nuclear Facility Inspectors assigned in the Ministry of Economy, Trade and Industry shall engage in the affairs concerning inspection provided in Article 28 through Article 29.

3. Nuclear Safety Inspectors assigned in the Ministry of Economy, Trade and Industry shall engage in the affairs concerning inspection provided in Articles 37, Paragraph 5.

4. The necessary matters concerning the number and qualification of Nuclear Facility Inspectors and Nuclear Safety Inspectors defined by the Government Ordinance.

(Entry and Inspection, Etc.)

**Article 68.** The Minister of Education, Culture, Sports, Science and Technology, Minister of Economy, Trade and Industry, minister of MLT or public safety commissions of prefectures may cause their officials, as far as necessary for the enforcement of this Law (for the enforcement of this Law according to the division of business operators listed in the items of Article 64, Paragraph 3 to enter the offices, factories or places of business so as to examine their books, documents and other necessary matters, ask questions of persons concerned, and take samples of nuclear source material, nuclear fuel material and other necessary materials in the minimum of amount required for test).

2. The Minister of Education, Culture, Sports, Science and Technology, Minister of Economy, Trade and Industry or minister of MLT may cause their officials, as far as necessary for the enforcement of this law (for the enforcement of the provisions of Article 28-2, Paragraph 1 related to commercial power reactors and their related facilities: the Minister of Economy, Trade and Industry), to enter the offices factories, or the places of business of the persons who conduct welding of the facilities specified in Article 28-2, Paragraph 1 so as to examine their books, documents and other necessary matters and ask questions of persons concerned.

5. When officials make entrance in accordance with the provisions of the preceding three paragraphs, they shall carry their identification cards with them and show them when requested by persons concerned.

6. The authority provided for in the provisions from Paragraph 1 through Paragraph 4 shall not be construed as having been granted for the purpose of criminal investigation.

(Order to the Organization)

**Article 68-2.** Competent minister may order the work to the Organization, when he recognize it is necessary to implement the work concerning the inspection and the work provided in paragraph 7 of previous Article appropriately.

(Administrative Protest Etc.)

**Article 70.** Any person dissatisfied with the disposition or the omission of inspection or verification to be implemented by the Organization in accordance with this law may file an administrative protest to the minister defined in the following subparagraphs in accordance with the classification of inspection and verification specified in the following subparagraphs in accordance with Administrative Review Law (Law No. 160, 1962):

(i) Inspection as provided in Article 61-24, Paragraph 1; the Minister of Economy, Trade and Industry.

2. An appeal of annulment for the disposition in accordance with this law shall not be filed till a decision (the decision for the administrative protest for the protest-able disposition as provided in the preceding paragraph) for the administrative protest is made.

3. The provisions provided in Article 27, Paragraph 2 of the Administrative Procedure Law shall not be applied to the action in accordance with this Law.

(Approval Etc. for Action Etc.)

**Article 71.** When the Minister of Education, Culture, Sports, Science and Technology, the Minister of Economy, Trade and Industry or the Minister of Land, Infrastructure, and Transport makes disposition as provided in Paragraph 1 of Article 23, Paragraph 1 of Article 23-2, Paragraph 1 of Article 26, Paragraph 1 of Article 26-2, Paragraph 1 of Article 31, Article 33 or Paragraph 1 or Paragraph 2 of Article 39, or adds the condition as provided in Article 62, Paragraph 2 (hereinafter referred to as "takes action etc." in this paragraph), the Minister of Education, Culture, Sports, Science and Technology, the Minister of Economy, Trade and Industry or the Minister of Land, Infrastructure, and Transport shall have approval of the Minister of Education, Culture, Sports, Science and Technology, the Minister of Economy, Trade and Industry or the Minister of Land, Infrastructure, and Transport in advance in accordance with the classification specified in the following subparagraphs:

- (i) When the Minister of Education, Culture, Sports, Science and Technology takes disposition etc. involving a power generating reactor as provided in Subparagraph (iii) of Article 23, Paragraph 1; the Minister of Economy, Trade and Industry; and
- (ii) When the Minister of Economy, Trade and Industry makes disposition etc. involving a commercial power reactor or a reactor provided in Article 23, Paragraph 1, Subparagraph (iv); the Minister of Education, Culture, Sports, Science and Technology.

**2.** When the Minister of Education, Culture, Sports, Science and Technology, the Minister of Economy, Trade and Industry or the Minister of Land, Infrastructure, and Transport recognizes it necessary to especially examine the particulars concerning the approval asked as provided in the preceding paragraph, the Minister of Education, Culture, Sports, Science and Technology, the Minister of Economy, Trade and Industry or the Minister of Land, Infrastructure, and Transport may demand necessary reports of the relevant reactor establisher or the foreign nuclear ship operator, or may cause their officials to enter the offices, factories or places of business of the reactor establisher or the foreign nuclear ship operator so as to examine their books, documents and other necessary matters, ask questions to persons concerned.

**3.** The provisions of Articles 68, Paragraph 6 and 11 shall apply mutatis mutandis to entry and inspection provided in the preceding paragraph.

**15.** When the Organization has implemented the inspection specified in Article 28-2, Paragraph 1 or Paragraph 4, the organization shall promptly notify the Minister of Economy, Trade and Industry of the results of inspection.

**16.** In the case of preceding paragraph, the Minister of Economy, Trade and Industry shall promptly notify the Minister of Education, Culture, Sports, Science and Technology of the results of inspection concerning the reactor provided in Article 23, Paragraph 1, Subparagraph (iv).

(Report to Nuclear Safety Commission)

**Article 72-3.** The Minister of Economy, Trade and Industry shall report to Nuclear Safety Commission quarterly of the licensing and inspection activity done concerning to the matters shown in the followings, in previous quarter, if necessary, he may ask the opinion of NSC, he will take necessary measures to prevent hazard due to reactor, nuclear fuel material and material contaminated with nuclear fuel material:

- (i) Approval of the fitness-for-safety program and its alteration provided in Article 37, Paragraph 1;
- (ii) Approval of Design and Construction Methods provided in Article 27, Paragraph 1 and Paragraph 2;
- (iii) Pre-service Inspection provided in Article 16-3, Paragraph 1 and Article 28, Paragraph 1.
- (iv) Welding inspection provided in Article 16-4, Paragraph 1 and Article 28-2, Paragraph 1; and
- (v) Periodic facility inspection provided for in Article 16-5, Paragraph 1 and Article 29, Paragraph 1.

**2.** Other than reports provided in the preceding paragraph, the Minister of Economy, Trade and Industry shall report to Nuclear Safety Commission of the enforcement status of this law concerning to prevent hazard due to nuclear fuel materials and materials contaminated with nuclear fuel materials or reactors in accordance with the provisions provided in the Ordinance of the Ministry of Economy, Trade and Industry.

(Co-operation to the investigation by Nuclear Safety Commission)

**Article 72-4.** The reactor establisher or contractors on maintenance of reactor facilities must cooperate Nuclear Safety Commission, when it conducts investigation concerning matters relating the report which is filed in accordance with provisions of Paragraph 1 of previous article.

(Exception from Application)

**Article 73.** The provisions of Article 27, Article 28 and Article 29 shall not apply to the commercial power reactors that are the reactor facilities to be inspected in accordance with the provisions of the Electricity Utilities Industry Law (Law No. 170, 1964) and the order based on the said law.

(Exception for Affairs)

**Article 74-2.** The Inspection concerning the safeguard shall be submitted to the officer of Ministry of Economy, Trade and Industry in accordance with the provision of Ordinance.

**2.** The officer of Ministry of Economy, Trade and Industry in accordance with the provision of the Ordinance may manage the affairs that can be managed by the officer of Ministry of Education, Culture, Sports, Science and Technology in accordance with the provision of Article 68, Paragraph 1, Paragraph 4, Paragraph 10 and Paragraph 11.

**3.** The requirement of Article 68, Paragraph 5 and Paragraph 6 shall apply mutatis mutandis to such on-the-spot inspection as prescribed in the preceding paragraph

Chapter 8 Penal Provisions

**Article 77.** Any person who comes under one of the following subparagraphs shall be condemned to penal servitude of not more than 3 years and/or the fine of not more than three million yen;

- (iv) A person who has established reactors without the permission under Article 23, Paragraph 1;
- (v) A person who has violated the order of suspension of operation of reactors provided for in Article 33, Paragraph 2; and
- (vi) A person who has received a reactor or whole facilities (including a nuclear ship) including a reactor without obtaining the permission provided for in Article 39, Paragraph 1, or a nuclear ship without obtaining permission provided in Paragraph 2 of the said Article.

**Article 78.** Any person who comes under one of the following items shall be condemned to penal servitude of not more than 1 year and/or to the fine of not more than one million yen:

- (iii) A person who, with regard to the matters for which the permission must be obtained specified in the provisions of Article 26, Paragraph 1, has changed matters provided in Article 23, Paragraph 2, Subparagraph (ii), Subparagraph (iii), Subparagraph (iv), Subparagraph (v) or Subparagraph (viii), without the permission provided for in the said paragraph;
- (iv) A person who has used reactor facilities in violation of the provisions of Article 28, Paragraph 1 or Article 28-2, Paragraph 1 or Paragraph 4;
- (v) A person who has violated the provisions of Article 40, Paragraph 1;
- (x) A person who has violated the provisions of Article 64, Paragraph 1 or of the order based on the provisions of Paragraph 3 of the said article.

**Article 78-3.** When the orders for the suspension of inspection work, as provided by Article 61-37 are violated, the executives or personnel of the designated inspection organization, etc. that has committed the violation shall be punished with penal servitude for a term not exceeding 1 year or a fine not exceeding five hundred thousand yen.

**Article 79.** Any person who comes under one the following items shall be condemned to the fine of not more than five hundred thousand yen:

- (i) A person who has violated orders based on the provisions of Article 36, Paragraph 1 or Paragraph 2;
- (ii) A person who has violated the provisions of Article 37, Paragraph 1;
- (iii) A person who has violated the orders based on the provisions of Article 37, Paragraph 3;
- (iv) Article 12-2, Paragraph 1, Article 22-6, Paragraph 1, Article 43, Paragraph 1, and Article 43-2
- (v) A person who has dismantled reactors without making a report provided for in Article 38, Paragraph 1, or who has violated the order based on the provisions of Paragraph 2 of the said article;
- (vi) A person who has violated the conditions of Article 62, Paragraph 1; or
- (vii) A person who has violated the provisions of Article 66, Paragraph 1, or who has violated the order based on the provisions of Paragraph 4 of the said article.

**Article 80.** Any person who comes under one of the following items shall be condemned to the fine of not more than three hundred thousand yen:

- (i) A person who has failed to record, recorded falsely or failed to keep records, in violation of the provisions of Articles 34;
- (v) A person who has failed to mail a report provided for in Article 67, Paragraph 1, or who has reported falsely; or
- (vi) A person who has refused, obstructed, or evaded the entry inspection or collection of samples provided for in Article 68, Paragraph 1 or Paragraph 2, or who has made no statement or made a false statement in response to relevant questions.

**Article 80-4.** When any of the following violations has been committed, the executives or personnel of the designated inspection organization, etc. that has committed the violation shall be punished with a fine not exceeding two hundred thousand yen:

- (i) The organization has abolished all of its inspection work, disposal confirmation work, the work of confirming the items transported in approved containers or the work of confirming the method of transportation without obtaining the permission mentioned in Article 61-36;
- (ii) The organization does not have account books, does not enter records in the books or made false entry into account books in violation of the provisions of Article 61-38, Paragraph 1;
- (iii) The organization has not stored account books in violation of the provisions of Article 61-38, Paragraph 2;
- (iv) The organization has not made the report mentioned in Article 67, Paragraph 2 or has made false report; or
- (v) The organization has refused, obstructed or evaded the entry and inspection mentioned in Article 68-2, or it has made no statement or has made false statement in response to relevant questions.

**Article 81.** When a representative of a juridical person, or an agent or any other employee of a juridical person or of a person has violated the provisions in the following subparagraphs with respect to the business of the juridical person or the person, the juridical person shall be punished with such fines provided in the respective subparagraph or the person shall be punished with such fine described in the respective items, in addition to the punishment of the actual offender:

- (i) Article 77, Subparagraph (iv), Subparagraph (v) or Subparagraph (vi) through Subparagraph (vii-4); fine not more than three hundred million yen; or
- (ii) Article 78, Subparagraph (ii), Subparagraph (iii), Subparagraph (iv), Subparagraph (viii) (excluding provisions concerning to reactor establishers of testing and research reactors), Subparagraph (x) (excluding provisions concerning to reactor establishers of testing and research reactors), Subparagraph (xi), Subparagraph (xii), Subparagraph (xxviii), Subparagraph (xxix) or Subparagraph (xxx); fine not more than

one hundred million yen.

**Article 82.** Any person who comes under one of the following items shall be condemned to the administrative fine of not more than one hundred thousand yen:

- (v) A person who has failed to report as describe in Article 30, or reported falsely;
- (vi) A person who has failed to report as described in Article 40, Paragraph 2; or
- (vii) A person who has failed, without any justified reason, or return the certificate for the chief engineer of reactors, in violation of the order based on the provisions of Article 41, Paragraph 3.

**Article 83.** A person who has failed to report as described in Article 26, Paragraphs 2 or Article 32, Paragraph 2, shall be condemned to the fine of not more than fifty thousand yen

***(2) Ordinance for the Enforcement of the Law on the Regulation of Nuclear Source Material, Nuclear Fuel Material and Reactors (Excerpt)***

***(Government Ordinance No.324, November 21, 1957)***

***Latest Revision: Ordinance No. 57, March 24, 2004***

Chapter 2 Rules for Establishment, Operation etc. of Reactors  
(Application for License for the Establishment of Reactors)

**Article 6.** Such license as provided in Article 23, Paragraph 1 of the Law shall be obtained for every factory or place of business (in the case of a nuclear reactor being installed in a ship, every ship) in which a nuclear reactor is to be installed.

2. Persons proposing to obtain such permission as mentioned in the preceding paragraph shall make an application together with their plan for raising the funds necessary for the construction of a reactor and other papers specified by the order of the competent ministry.

(Reactor at the Stage of Research and Development)

**Article 6-2.** Such reactors as determined by government ordinance as provided in Article 23, Paragraph 1, Subparagraph (iv) of the Law shall for the time being be listed among the reactors of a type identical with that of those which had by January 3, 1979, been given such license as provided in Article 23, Paragraph 1 of the Law before its revision under the Law for Partial Revision of the Atomic Energy Basic Law and Others (Law No. 86, 1978) or with that of those (referred to as "special reactors" in the following paragraph) which had by that time been scheduled for construction under the basic program for the development of power reactors specified in Article 25, Paragraph 1 of the Power Reactor and Nuclear Fuel Development Corporation Law (Law No.73, 1967) for purposes as reactors designed for electric power generation, provided that those designed for electric power generation shall come under any of the following Subparagraph (i) and Subparagraph (ii).

- (i) Fast breeder reactors (the fast breeder reactor as referred to in Article 2, Paragraph 1 of the Power Reactor and Nuclear Fuel Development Corporation Law (Law No. 73, 1967)).
- (ii) Heavy water moderated, boiling light water cooled reactors (reactors using heavy water for moderator and boiling light water for coolant). (Application for Permission for Alterations affecting the Establishment of Reactors)

**Article 8.** Reactor establisher, when proposing to obtain such license for alterations provided in Article 26, Paragraph 1 of the Law, shall, as specified by the order of the competent ministry, submit to the competent minister an application in which the following particulars are entered:

- (i) Their names or titles, domiciles and if they are juridical persons, the name of their representative;
- (ii) The name and address of the factory or place of business dependent on the alteration;
- (iii) Details of the alteration;
- (iv) Reason for the alteration; and
- (v) If the alteration involves construction work, the plan for the work.

(Reactor Facilities Subject to Periodic Inspection of Installation)

**Article 10.** Those determined by government ordinance of such reactor facilities provided in Article 29, Paragraph 1 of the Law shall be reactors, nuclear fuel material handling facilities, storage facilities, reactor cooling system facilities, instrumentation and control system facilities, disposal facilities, radiation management facilities, reactor containment facilities, emergency power supply facilities and other facilities attached to reactors determined by order of the competent ministry.

(Application for Permission of Transfer of Reactors)

**Article 12.** Persons proposing, in accordance with the provisions of Article 39, Paragraph 1 of the Law, to obtain license for a reactor or facilities as a whole including a reactor, shall, as specified in the order of the competent ministry, submit to the competent minister an application in which the following particulars are entered:

- (i) Their names or titles, domiciles and if they are juridical persons, the name of their representative;
- (ii) The names or titles and domiciles of their opponents, and if they are juridical persons, the name of their representative;
- (vi) Purpose of use;
- (vii) Type, thermal power and number of reactors;
- (vi) The name and address of the factory or place of business where the reactor is installed;
- (vii) Location, structure and equipment of reactor facilities;

- (vii) The type of nuclear fuel material for use as fuel in the reactor and its annual amount scheduled for use; and
- (viii) Method of the disposal of spent fuel.

(Reporting)

**Article 22.** The Minister of Economy, Trade and Industry, in accordance with the provisions of Article 67, Paragraph 1 of the Law, may cause refining business operators, fabrication business operator, commercial nuclear reactor operator (reactor establishments specified in either item 1 or 4 of Article 23, Paragraph 1 of the Law, the same to the following paragraph) spent fuel storage business operator, reprocessing business operator and disposal business operator etc. to report on, in addition to the particulars mentioned in the preceding paragraph, such particulars as listed in the left column of the following Table with respect to such persons as listed correspondingly in the lower column of the Table.

Establishers of commercial power reactors, etc.	<ul style="list-style-type: none"> <li>(i) Status of inventory or the change in quantity of nuclear fuel materials.</li> <li>(ii) The quantity of nuclear fuel materials inserted as fuel and its takeout.</li> <li>(iii) The burn-up of nuclear fuel material.</li> <li>(iv) The operating time and thermal power of the reactor.</li> <li>(v) Status of radiation management.</li> <li>(vi) Status of accidents damaging to persons in the reactor facilities.</li> <li>(vii) Status of failures (with the exception of such failure may cause little trouble to the operation of reactor) in the reactor facilities.</li> <li>(viii) Status of disposal or transport of nuclear fuel material, etc. outside of the facilities or place of business in which reactor facilities are established.</li> <li>(ix) Status of accidents damaging to persons in the course of disposal or transport of nuclear fuel material, etc. outside of the factories or place of business in which reactor facilities are established.</li> </ul>
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6. The Minister of Education, Culture, Sports, Science and Technology, the Minister of Economy, Trade and Industry or the Minister of MNLTL may, under the provisions of Article 67, Paragraph 2 of the Law, cause designed inspection organization, etc. to report on the matters concerning the operation of their business.

(The Number and Qualification of Nuclear Facility Inspector and Nuclear Safety Inspector)

**Article 23.**

2. The number of Nuclear Facility Inspector of Ministry of Economy, Trade and Industry shall be one hundred and sixty-three.

3. The Nuclear Facility Inspector of Ministry of Economy, Trade and Industry shall have enough knowledge and experience on structure, performance and fitness for safety of nuclear facilities.

4. The Nuclear Safety Inspector of Ministry of Economy, Trade and Industry shall have enough knowledge and experience on the measures to be taken by the reactor establisher and spent fuel storage business operator in order to ensure the fitness for safety, structure and performance of nuclear facilities.

***(3) Rules Concerning Report to Nuclear Safety Commission Provided in Article 72-3, Paragraph 2 of the Law for the Regulations of Nuclear Source Material, Nuclear Fuel Material and Reactors***

***(Ordinance No. 2 of the Ministry of Education, Culture, Sports, Science and Technology, Ministry of Economy, Trade and Industry and Ministry of Land, Infrastructure, and Transportation, March 31, 2003)***

Rules Concerning Report to Nuclear Safety Commission Provided in Article 72-3, Paragraph 2 of the Law for the Regulations of Nuclear Source Material, Nuclear Fuel Material and Reactors (Law 166, 1957) are provided as followings in accordance with Article 72-3, Paragraph 2 of the Law for the Regulations of Nuclear Source Material, Nuclear Fuel Material and Reactors.

**Article 1.** In accordance with the provision of Article 72-3, Paragraph 2 of the Law for the Regulations of Nuclear Source Material, Nuclear Fuel Material and Reactors (hereinafter referred to as “the Law”), the Minister of Education, Culture, Sports, Science and Technology, the Minister of Economy, Trade and Industry or the Minister of Land, Infrastructure, and Transport shall make quarterly reports to Nuclear Safety Commission of the implemented inspection, verification and licensing activities in the previous quarter concerning to the items described in the followings:

- (i) Inspections provided in Article 12, Paragraph 5, Article 22, Paragraph 5, Article 37, Paragraph 5, Article 43-20, Paragraph 5, Article 50, Paragraph 5, Article 51-18, Paragraph 6 and Article 56-3, Paragraph 5 of the Law;
- (ii) Verification provided in Article 51-6, Paragraph 1 of the Law; and
- (iii) Permission provided in Article 52, Paragraph 1 of the Law and Article 55, Paragraph 1 of the Law.

**Article 2.** Other than particulars specified in the preceding article, in accordance with the provision of Article 72-3, Paragraph 2 of the Law, the Minister of Education, Culture, Sports, Science and Technology, the Minister of Economy, Trade and Industry or the Minister of Land, Infrastructure or Transport shall report to Nuclear Safety Commission of the enforcement status concerning the request of report and entry and inspection described in the following subparagraphs promptly after the enforcement:

- (i) Request of the report provided in Article 67, Paragraph 1 of the Law (limited to those relevant to radiation control, accident resulting in injury or death or failure conditions of facilities for preventing hazards due to nuclear fuel materials, materials contaminated with nuclear fuel materials or reactors); and

- (ii) Entry and inspection provided in Article 68, Paragraph 1 and Paragraph 2 of the Law (limited to those relevant to preventing hazards due to nuclear fuel materials, materials contaminated with nuclear fuel materials or reactors).

***(4) Ordinance for Implementation of Inspection Etc. by Japan Nuclear Energy Safety Organization in Accordance with the Provision of the Law for the Regulations of Nuclear Source Material, Nuclear Fuel Material and Reactors***

*(Ordinance No. 112 of Ministry of Economy, Trade and Industry, September 24, 2003)*

In accordance with provisions provided in Article 66-2, Paragraph 3 and Article 66-3 of the Law for the Regulations of Nuclear Source Material, Nuclear Fuel Material and Reactors (Law 166, 1957), and for the purpose of enforcement of the Law, Ordinance for Implementation of Inspection Etc. by Japan Nuclear Energy Safety Organization in accordance with the provision of the Law for the Regulations of Nuclear Source Material, Nuclear Fuel Material and Reactors is as provided for in the followings.

(Definition)

**Article 1.** The meaning of terms used in this ordinance follows that of terms used in the Law for the Regulations of Nuclear Source Material, Nuclear Fuel Material and Reactors (hereinafter referred to as “the Law”).

(Person who Implements Inspection Affairs and Welding Inspection)

**Article 2.** The person who implements a part of affairs concerning inspection provided in Article 16-3, Paragraph 3 of the Law, Article 28, Paragraph 3 of the Law and Article 16-5, Paragraph 3 of the Law (including the case to apply mutatis mutandis to Article 29, Paragraph 3 of the Law) (hereinafter referred to as “Inspection Affairs”) and the inspection provided in Article 61-24, Paragraph 1 of the Law (hereinafter referred to as “Inspection”) that shall be performed by Japan Nuclear Energy Safety Organization (hereinafter referred to as “the Organization”) shall be a personnel of the Organization and qualified by one of the following subparagraphs specified in the order of competent ministry provided in Article 66-3 of the Law, and shall be appointed by the president of the Organization (hereinafter referred to as “Nuclear Facility Examiner”):

- (i) A person who majored in a subject concerning science or engineering at the college (excluding junior college, same as in Subparagraph (i) and Subparagraph (ii) of the following article and Article 5, Subparagraph (i)) as provided in the School Education Law (Law No. 26, 1947) and graduated from it or a person who is recognized to have knowledge and experience equal to or more than the former and have total of 2 years or more experience in the fitness-for-safety affairs and other administrative affairs concerning fitness for safety (hereinafter referred to as “fitness-for-safety administrative affairs”) at a processing facility, a reactor facility, a reprocessing facility, a waste disposal facility, a specific waste management facility, a use facility, etc. (hereinafter referred to as “Nuclear Facility”) or have total of 3 years or more experience in affairs concerning design, construction, maintenance, inspection, quality assurance or operation of the Nuclear Facility (hereinafter referred to as “fitness-for-safety affairs”), and finished training as provided by the Minister of Economy, Trade and Industry;
- (ii) A person who majored in a subject concerning science or engineering at the junior college or the tertiary college provided in the School Education Law and completed the course concerning the subject described above or a person who is recognized to have knowledge and experience equal to or more than the former and have total of 4 years or more experience in fitness-for-safety administrative affairs or have total of 5 years or more experience in fitness-for-safety affairs, and finished training as provided by the Minister of Economy, Trade and Industry;
- (iii) A person who has total of 6 years or more experience in fitness-for-safety administrative affairs or have total of 7 years or more experience in fitness-for-safety affairs, and finished training as provided by the Minister of Economy, Trade and Industry;
- (iv) A person who has a career as a Nuclear Facility Inspector;
- (v) A person who has a career as a Electric Structure Inspector provided in Article 104, Paragraph 2 of Electricity Utilities Industry Law (Law 170, 1964) or a career as Electric Structure Inspection Personnel (a person specified in Article 3 of Ordinance for Implementation of Inspection etc. by Japan Nuclear Energy safety Organization in accordance with the provision of Electric Utilities Industry Law (the Ordinance No. 111 of Ministry of Economy, Trade and Industry, 2003, hereinafter referred to as “Ministry Ordinance for Inspection”), and the same shall be applied, hereinafter), and finished training as provided by the Minister of Economy, Trade and Industry; or
- (vi) A person who the Minister of Economy, Trade and Industry recognized to have knowledge and experience equal to or more than the persons described in the preceding subparagraphs.

(Person who Implements Welding Inspection)

**Article 3.** The person who implements welding inspection that shall be performed by the Organization shall be a personnel of the Organization, and qualified by one of the following subparagraphs specified in the order of competent ministry provided in Article 66-3 of the Law, and shall be appointed by the president of the Organization (hereinafter referred to as “Welding Inspector”):

- (i) A person who majored in a subject concerning welding engineering, nuclear engineering, naval architecture, mechanical engineering, metal engineering, electric engineering and chemical engineering at the college provided in the School Education Law and graduated from it, and has total of 2 years or more experience in practice of construction or inspection of Nuclear Facilities, and finished training as provided by the Minister of Economy, Trade and Industry;
- (ii) A person who majored in a subject concerning science or engineering (excluding particulars described in the preceding subparagraph) at the college provided in the School Education Law and graduated from it, and has total of 4

- years or more experience in practice of construction or inspection of Nuclear Facilities, and finished training as provided by the Minister of Economy, Trade and Industry;
- (iii) A person who majored in a subject concerning welding engineering, nuclear engineering, naval architecture, mechanical engineering, metal engineering, electric engineering or chemical engineering at the junior college or the tertiary college provided in the School Education Law and completed the course concerning subject described above, and has total of 4 years or more experience in practice of construction or inspection of Nuclear Facilities, and finished training as provided by the Minister of Economy, Trade and Industry;
  - (iv) A person who has total of 6 years or more experience in practice of construction or inspection of Nuclear Facilities, and finished training as provided by the Minister of Economy, Trade and Industry;
  - (v) A person who has a career as a Nuclear Facility Inspector;
  - (vi) A person who has a career as Electric Structure Inspector provided in Article 104, Paragraph 2 of the Electricity Utilities Industry Law or a career as Electric Structure Inspection Personnel;
  - (vii) A person who has experience in implementation for welding inspection, inspection provided in Article 61-24, Paragraph 2 of the Law, inspection provided in subparagraphs of Article 61-24, Paragraph 2 of the Law before amendment (hereinafter referred to as “the Old Law”) provided in Article 8 of supplementary provision of the Law for Japan Nuclear Energy Safety Organization (Law No. 179, 2002) or old welding inspection (inspection provided in Article 52, Paragraph 1 of Electricity Utilities Industry law before amendment provided in Article 9 of the Law on Consolidation and Rationalization for Standard, Licensing System Etc. concerning Ministry of International Trade and Industry (Law No.121, 1999), the same shall be applied, hereinafter );
  - (viii) A person who has experience in practice of the review provided in Article 52, Paragraph 3 of the Electricity Utilities Industry Law; or
  - (ix) A person who the Minister of Economy, Trade and Industry recognized to have knowledge and experience equal to or more than the persons described in the preceding subparagraphs.

(Person who Implement Verification Affairs for Waste Disposal Facilities)  
(Particulars Stipulated in Rules for Affairs)

**Article 7.** Particulars that shall be stipulated in rules for affairs concerning Inspection Affairs specified in the order of competent ministry provided in Article 66-2, Paragraph 3 of the Law shall be particulars shown in the followings:

- (i) The name of the place of business and the area where the place of business implements Inspection Affairs;
- (ii) Particulars for office hours that Inspection Affairs are implemented and day off;
- (iii) Particulars for duties of a Nuclear Facility Examiner;
- (iv) Particulars for appointment and dismissal and assignment of a Nuclear Facility Examiner.
- (v) Particulars for implementation method for Inspection Affairs;
- (vi) Particulars for preservation of books and documents for Inspection Affairs;
- (vii) Particulars for notifying the competent minister of the results of Inspection Affairs; and
- (viii) Other particulars necessary to implement Inspection Affairs.

**2.** Particulars that shall be stipulated in rules for affairs concerning welding inspection specified in the order of competent ministry provided in Article 66-2, Paragraph 3 of the Law shall be particulars shown in the followings:

- (i) The name of the place of business and the area where the place of business implements welding inspection work;
- (ii) Particulars for office hours that welding inspection is implemented and day off;
- (iii) Particulars for method of collecting charge;
- (iv) Particulars for duties of nuclear Welding Inspector;
- (v) Particulars for appointment and dismissal and assignment of nuclear Welding Inspector;
- (vi) Particulars for implementation method for welding inspection;
- (vii) Particulars for method of certification that the results of welding inspection are acceptable;
- (viii) Particulars for preservation of books and documents for welding inspection; or
- (ix) Other particulars necessary to implement welding inspection.

**3.** The provisions of subparagraphs of Paragraph 1 shall apply mutatis mutandis to particulars that shall be stipulated in rules concerning verification affairs for waste disposal facilities in accordance with the order of competent ministry provided in Article 66-2, Paragraph 3 of the Law. In the case, “Inspection Affairs” shall be translated into “verification affairs for waste disposal facility”, and “Nuclear Facility Examiner” shall be translated into “waste disposal facility verification personnel” in these provisions.

**4.** The provisions of subparagraphs of Paragraph 2 shall apply mutatis mutandis to particulars that shall be stipulated in rules for affairs concerning disposal verification in accordance with the order of competent ministry provided in Article 66-2, Paragraph 3 of the Law. In the case, “welding inspection” shall be translated into “disposal verification”, “Welding Inspector” shall be translated into “disposal verification personnel”, and “the results of welding inspection are acceptable” shall be translated into “disposal was verified” in these provisions.

**5.** The provisions of subparagraphs of Paragraph 2 shall apply mutatis mutandis to particulars that shall be stipulated in rules for affairs concerning transporting material verification in accordance with the order of competent ministry provided in Article 66-2, Paragraph 3 of the Law. In the case, “welding inspection” shall be translated into “verification for transporting material”, “Welding Inspector” shall be translated into “transporting material verification personnel”, and “the results of welding inspection are acceptable” shall be translated into “transporting material was verified” in these provisions.

(Reporting)

**Article 8.** When the Organization implemented welding inspection, disposal verification and verification for transporting

material, the Organization shall promptly reports to the Minister of Economy, Trade and Industry of the results with inspection result report in Form No.1 for welding inspection, disposal verification result etc. report in Form No. 2 for disposal verification and transporting material verification result report in Form No. 3 for transporting material verification. However, if the results were notified in accordance with the provision provided in Article 71, Paragraph 15 of the Law, the provisions in this article are not applicable.

**Article 9.** Notification provided in Article 71, Paragraph 15 of the Law shall be notified with inspection result notification in Form No.1.

(Identification Card for Entry and Inspection, Etc. Implemented by the Organization)

**Article 10.** Identification card carried by the Organization personnel making entry and inspection, etc. provided in Article 68, Paragraph 7 of the Law shall be in Form No. 4.

***(5) The Rule for the Installation, Operation, etc. of Commercial Nuclear Power Reactors (Excerpt)***  
***(Ordinance No.77 of the Ministry of International Trade and Industry, December 28, 1978)***  
***Latest Revision: Ordinance No.113 of the Ministry of Economy, Trade and Industry, September 24, 2003***

(Definitions)

**Article 1.** The meaning of the terms used in this ministerial order are after tat of the terms used in the Law for the Regulations of Nuclear Source Material, Nuclear Fuel Material and Reactors (herein after called Law)

**2.** In this ministerial order, the meaning of the following terms shall be as defined in the following respective items:

- (iv) "Control zones" means the reactor chamber, the spent fuel storage facility, the radioactive waste disposal facility, etc. where there is a hazard that the dose equivalent may exceed the limit specified by the Minister of Economy, Trade and Industry, and that the concentration of radioactive material in the air may exceed the level specified by Ministry of Economy, Trade and Industry or that the density of radioactive material on the surface of objects contaminated by radioactive material may exceed the level specified by the Minister of Economy, Trade and Industry;
- (vi) "Environmental monitoring area" means that area surrounding control zones, the outside of which there is no possibility of the dose equivalent at any location exceeding the limit of the dose equivalent specified by the Minister of Economy, Trade and Industry.

(Application of License for Establishment of Nuclear Reactor)

**Article 2.** Pursuant to Article 23, Paragraph 2 of the Law, the entries in the application for the license for the installation of nuclear reactors shall be made in accordance with the following subparagraphs:

- (i) For the thermal power of a nuclear reactor under Article 23, Paragraph 2, Subparagraph (iii) of the Law, the continuous maximum thermal power shall be entered;
- (ii) For the location, structure and equipment of a nuclear reactor facility under Article 23, Paragraph 2, Subparagraph (iv) of the Law, the entry shall be made under the following divisions;
  - A. Nuclear reactor facility locations,
    - (a) Site area and shape
    - (b) Locations of main nuclear reactor facilities within the site
  - B. Nuclear reactor facility general structure,
    - (a) The aseismatic structure
    - (b) Other main structures
  - C. Reactor core structure and equipment,
    - (a) Reactor core
      - (1) Structure
      - (2) Maximum amount of fuel assemblies to load into the core
      - (3) Main nuclear limitation values
      - (4) Main thermal limitation values
    - (b) Fuel assembly
      - (1) Fuel material type
      - (2) Cladding type
      - (3) Fuel element structure
      - (4) Fuel assembly structure
      - (5) Maximum burn-up
    - (c) Moderator and reflector types
    - (d) Reactor vessel
      - (1) Structure
      - (2) Maximum operating pressure and temperature
    - (e) Radiation shield structure
    - (f) Other main items
  - D. Nuclear fuel material handling and storage facility structure and equipment,
    - (a) Nuclear fuel material handling equipment structure
    - (b) Nuclear fuel material storage equipment structure and storage capacity
  - E. Reactor cooling system facility structure and equipment,
    - (a) Primary cooling equipment

- (1) Coolant type
- (2) Number and structure of main components and piping units
- (3) Coolant temperature and pressure
- (b) Secondary cooling equipment
  - (1) Coolant type
  - (2) Number and structure of main components
- (c) Emergency cooling equipment
  - (1) Coolant type
  - (2) Number and equipment of main components and piping units
- (d) Other main items
- F. Instrumentation and control facility structure and equipment,
  - (a) Instrumentation
    - (1) Nuclear instrumentation types
    - (2) Other main instrumentation types
  - (b) Safety protection circuits
    - (1) Reactor shutdown circuit type
    - (2) Other main safety protection circuit types
  - (c) Control equipment
    - (1) Number and structure of control material units
    - (2) Number and structure of control material units drive equipment
    - (3) Reactivity control capability
  - (d) Emergency control equipment
    - (1) Number and structure of control material units
    - (2) Number and structure of main components
    - (3) Reactivity control capability
  - (e) Other main items
- G. Radioactive waste disposal facility structure and equipment,
  - (a) Gaseous waste disposal facility
    - (1) Structure
    - (2) Waste disposal capacity
    - (3) Exhaust vent location
  - (b) Liquid waste disposal equipment
    - (1) Structure
    - (2) Waste disposal capacity
    - (3) Discharge port location
  - (c) Solid waste disposal equipment
    - (1) Structure
    - (2) Waste disposal capacity
- H. Radiation management facility structure and equipment,
  - (a) Indoor management main equipment types
  - (b) Outdoor management main equipment types
- I. Reactor containment facility structure and equipment, and
  - (a) Structure
  - (b) Design pressure, temperature and leakage rate
  - (c) Other main items
- J. Structure and equipment of other facilities attached to the reactor.
  - (a) Structure of emergency power supply
  - (b) Other main items
- (iii) For the construction plan provided in Article 23, Paragraph 2, Subparagraph (iv) of the Law, the construction sequence and schedule shall be entered;
- (iv) For the nuclear fuel material type and the yearly projected consumption amount of the nuclear fuel material which is to be used as the fuel of the reactor provided in Article 23, Paragraph 2, Subparagraph (vii) of the Law, their yearly projected loading amount and burn-up shall be entered for the respective material types; and
- (v) For the spent fuel disposal method provided in Article 23, Paragraph 2, Subparagraph (viii) of the Law, the parties to whom it is to be sold, loaned or returned, and the method thereof, or its disposal method shall be entered.
- 2. The documents specified by the order of the competent ministry as provided in Article 6, Paragraph 2 of the Ordinance for the Enforcement of the Law for the Regulations of Nuclear Source Material, Nuclear Fuel Material and Reactors (hereinafter referred to as "the Ordinance") shall be as specified in the following subparagraphs:
  - (i) Expository documents related to the purpose of use of the reactor;
  - (ii) Expository documents related to the thermal power of the reactor;
  - (iii) Documents describing the fund amount required for and the procuring plan for the construction;
  - (iv) Documents describing the procurement plan for the nuclear fuel material required for the operation of the reactor.
  - (v) The expository documents related to the technical capability for the installation and operation of the reactor facility;
  - (vi) Expository documents on the meteorological, ground, hydraulic, seismic, social environment and other conditions of the location where the reactor facility is to be installed;
  - (vii) A 1:200,000 map for the area covering the distance of 20 km from the location of the planned reactor or its main related facilities, and a 1:50,000 map for the area covering the distance of 5 km from the said location;

- (viii) Expository documents related to the safety design of the reactor facility;
  - (ix) Expository documents related to the management of the radiation exposure to be caused by the nuclear fuel material and by the objects contaminated by the nuclear fuel material, and on the disposal of the radioactive waste;
  - (x) Expository documents related to the types, levels, impacts, etc. of reactor accidents to be assumed to occur in the event of operational error of the reactor, of the faults of the machinery or devices, of earthquakes, of fire, etc.; and
  - (xi) In the case of a juridical person, the articles of association or the endowment, the abridged copies of the register and the recent inventory, balance sheet and profit and loss statement
3. The number of copies for the application as specified under Paragraph 1 shall be one original and two duplicates.

(Pre-service Inspection Performed by the Organization)

**Article 3-6-2.** The part of affairs concerning inspections that the Minister of Economy, Trade and Industry shall make Japan Nuclear Energy Safety Organization (hereinafter referred to as “the Organization”) perform in accordance with provisions of Article 16-3, Paragraph 3 of the Law, which is applied mutatis mutandis to Article 28, Paragraph 3 of the Law, shall be particulars provided in the following subparagraphs:

- (i) The inspection concerning particulars provided in Article 3-5, Subparagraph (i) and Subparagraph (ii); and
- (ii) The inspection concerning particulars provided in Article 3-5, Subparagraph (iii) and Subparagraph (iv) (excluding inspection for the ventilation equipment to see if the performance is in conformity with the technical standard provided in Subparagraph (iii) and Subparagraph (iv) of the preceding article).

(Notification for Pre-service Inspection Performed by the Organization)

**Article 3-6-3.** When the Minister of Economy, Trade and Industry received the application provided in Article 3-4, Paragraph 1 or the notification provided in the said article, Paragraph 2, the Minister of Economy, Trade and Industry shall notify the Organization of the notification described following particulars provided in the following subparagraphs for the part of affairs concerning inspections that the Organization shall perform in accordance with Article 16-3, Paragraph 3 of the Law that is applied mutatis mutandis to the application provided in Article 28, Paragraph 3 of the Law:

- (i) Names or titles, address, and if they are juridical persons, the name of their representative who undergo the inspection;
  - (ii) The name and address of the factory or place of business to undergo the inspection;
  - (iii) The date when the inspection is undergone;
  - (iv) The place where the inspection is undergone;
  - (v) Objects of the inspection; and
  - (vi) Inspection methods,
2. The notification provided in the preceding paragraph shall be attached with copies of documents shown in the following subparagraphs:
- (i) The application provided in Article 3-2, Paragraph 1 and the annex provided in the said article, Paragraph 2 or the application provided in Article 3-3, Paragraph 1 and the annex provided in the said article, Paragraph 2; or
  - (ii) The application provided in Article 3-4, Paragraph 1 and the documents concerning the notification provided in the said article, Paragraph 2.
3. When any of the particulars described in the notification provided in Paragraph 1 has been altered, the Minister of Economy, Trade and Industry shall promptly notify the Organization of the alteration.

(Notification on Results of Pre-service Inspection)

**Article 3-6-4.** The notification, provided in Article 16-3, Paragraph 4 of the Law that is applied mutatis mutandis to Article 28, Paragraph 3 of the Law, shall describe particulars of the following items:

- (i) Names or titles, address, and if they are juridical persons, the name of their representative who undergone the inspection;
- (ii) The name and address of the factory or place of business to be undergone the inspection;
- (iii) The date when the inspection is undergone;
- (iv) The place where the inspection is undergone;
- (v) Objects of the inspection;
- (vi) Inspection methods; and
- (vii) Inspection Results.

(Certificate of Compliance for Pre-service Inspection)

**Article 3-7.** If the results of the inspection provided in Article 28, Paragraph 1 of the Law are decided to be acceptable, the Minister of Economy, Trade and Industry shall issue a certificate of compliance of the Pre-service Inspection to the application concerned.

(Nuclear Facilities that Undergo Welding Inspection)

**Article 3-8.** The Nuclear Facilities that is defined in the Ordinance of the Ministry of Economy, Trade and Industry provided in Article 28-2, Paragraph 1 of the Law shall be as shown in the following subparagraphs:

- (i) Vessels that belong to the radiation management facility or adjunct facilities to reactors provided in Article 2, Paragraph 1, Subparagraph (ii), J of (excluding emergency power supply facilities, hereinafter referred to as “Adjunct Facilities” in this article), and are used as equipment important to safety in an emergency;
- (ii) Vessels that belong to the reactor containment facility;
- (iii) Piping units that belong to the radiation management facility or attached facilities, and are used as equipment important to safety in an emergency (excluding piping units provided in the following subparagraphs);

- (iv) Piping units that are installed in a reactor containment, and the part of the piping units that lead to the stop valve installed most close to the containment;
- (v) Vessels that belong to the radioactive waste disposal facility, radiation management facility or adjunct facility (excluding vessels provided in Subparagraph (i)) or piping units belong to those facilities of which outer diameters exceed 61mm (100mm for piping units used below 98kPa of the maximum operating pressure), and the contained radioactive material concentration in the piping units is 37mBq per cubic centimeters or more (37kBq per cubic centimeters for the contained radioactive material in liquid); and
- (vi) Vessels that belong to the radioactive waste disposal facility, radiation management facility or adjunct facilities (excluding vessels provided in Subparagraph (i)) or piping units belong to those facilities of which outer diameters exceed 150 millimeters (excluding piping units provided in Subparagraph (iii) and Subparagraph (iv), and the contained radioactive material concentration in the piping units is below 37mBq per cubic centimeters (37kBq per cubic centimeters for the contained radioactive material in liquid), and welded to the part subjecting to the pressure exceeding the pressure (hereinafter referred to as “pressure resistant part”) provided for in the followings;
  - A. The maximum operating pressure is 1960kPa for vessels or piping units used for water, and the maximum operating temperature of the vessels or piping units is below 100 degrees,
  - B. The maximum operating pressure is 98kPa for vessels with exception of the vessels provided in A, or
  - C. The maximum operating pressure is 980kPa for piping units with exception of the piping units provided in A (490kPa for the part of longitudinal joint).

(Application for Welding Inspection)

**Article 3-9.** A person, who wishes to undergo welding inspection for Nuclear Facilities provided in the preceding article in accordance with Article 28, Paragraph 1 of the Law, shall submit the application to the Organization in accordance with rules for affairs provided by the Organization in accordance with the provision of Article 66-2, Paragraph 1 of the Law.

(Implementation of Welding Inspection)

**Article 3-10.** Welding inspection, provided in Article 28-2, Paragraph 1 of the Law, shall be implemented for the process provided in following subparagraphs:

- (i) When welding works are carried out (excluding the case that the work concerning seal welding for vessels or piping units provided in Article 3-8, Subparagraph (vi) of and the Minister of Economy, Trade and Industry approved to use vessels or piping units without welding inspection because there is no problem from a view point of standardization of welding works, standardization of materials used for welding, etc.);
- (ii) When the condition is ready to implement the nondestructive inspection for weld where nondestructive inspection is required by the technical standard (hereinafter referred to as “Technical Standard for Welding”) provided in Article 28-2, Paragraph 3, Subparagraph (ii) of the Law;
- (iii) When the condition is ready to implement the mechanical examination for the butt weld in accordance with the Technical Standard for Welding; or
- (iv) When the condition is ready to implement the pressure test (excluding the case involving the seal welding for vessels or piping units provided in Article 3-8, Subparagraph (vi)).

(The Case Welding Inspection is not Necessary)

**Article 3-11.** The case defined by the Ordinance of the Ministry of Economy, Trade and Industry, provided in the proviso of Article 28-2, Paragraph 1 of the Law, shall be the case to use vessels or piping units provided in Article 3-8, Subparagraph (vi) with only seal welding (including the case that only the new welding is implemented for pressure resistant part).

**Article 3-12.** A person who wishes to obtain approval provided in Article 28-2, Paragraph 2 of the Law shall submit the application describing particulars provided for in the followings to the Minister of Economy, Trade and Industry for every factory where welding is implemented:

- (i) The name or title and the address, and in the case of a juridical person, the name of its representative;
- (ii) The name of the factory where welding is to be implemented;
- (iii) The type and capacity of welding equipment;
- (iv) The kind of implementing methods of the welding; and
- (v) The name of the person who implement the welding and the scope of implementation of welding methods that the person adopts.

2. Documents that clarify particulars provided for in the followings shall be attached to the application provided in the preceding paragraph:

- (i) Welding equipment;
- (ii) Implementing welding methods; and
- (iii) The knowledge and skill of the person who implements the welding.

3. When the Minister of Economy, Trade and Industry recognizes that the welding methods concerning the application for approval provided in Paragraph 1 falls under the following subparagraphs, the Minister of Economy, Trade and Industry shall permit the welding provided in the said paragraph:

- (i) The type and capacity of welding equipment using welding methods concerning the application are appropriate to implement the welding;
- (ii) The welding methods to be implemented are appropriate to ensure the weld strength; and
- (iii) The person who implements the welding has adequate knowledge and skill for the welding using welding methods that the person adopts.

4. The number of copies for the application provided in Paragraph 1 shall be one original.

(Welding Inspection for Imports)

**Article 3-13.** A person who wishes to undergo welding inspection for the weld of imported Nuclear Facilities provided in Article 3-8 with welds in accordance with provisions of Article 28-2, Paragraph 4 of the Law shall submit the application to the Organization in accordance with rules for affairs provided by the Organization in accordance with the provision of Article 66-2, Paragraph 1 of the Law.

(Certificate of Compliance for Welding Inspection)

**Article 3-14.** If the results of welding inspection implemented in accordance with Article 28-2, Paragraph 1 or Paragraph 4 of the Law are decided to be acceptable, the Organization shall issue a certificate of compliance for welding inspection and indicate it on the welded vessels or piping units with engraved marks or the alternative.

(Application for the Periodic Inspection of Facilities)

**Article 3-15.** A person who wishes to undergo the inspection of performance of the Nuclear Facilities in accordance with the provision provided in Article 29, Paragraph 1 of the Law shall submit the application describing particulars provided for in the followings to the Minister of Economy, Trade and Industry:

- (i) Names or titles, address, and if they are juridical persons, the name of their representative;
- (ii) The name and address of the factory or place of business where the reactor is installed;
- (iii) The name of Nuclear Facilities to be undergone the inspection; and
- (iv) The items of the inspection and the date to be implemented.

**2.** When the particulars described in the application provided in the preceding paragraph has been altered, the alteration shall be notified promptly to the Minister of Economy, Trade and Industry.

**3.** The number of submission of the application described in Paragraph 1 and the notification described in the preceding paragraph shall be one original and one duplicate.

(Periodic Inspection of Facility Implemented by the Organization)

**Article 3-15-2.** The part of affairs concerning inspection, which the Minister of Economy, Trade and Industry shall make the Organization perform in accordance with Article 16-5, Paragraph 3 of the Law that is applied mutatis mutandis to Article 29, Paragraph 3 of the Law, shall be the inspection to see if the performance is in conformity with the technical standard provided in subparagraphs of Article 3-17 (excluding the inspection for ventilation equipment).

(Notification for Periodic Inspection of Facility Performed by the Organization)

**Article 3-15-3.** When the Minister of Economy, Trade and Industry receives the application provided in Article 3-15, Paragraph 1 or the notification provided in the said article, Paragraph 2, the Minister of Economy, Trade and Industry shall notify the Organization of notification describing the following particulars provided in the followings for the part of affairs concerning the inspection that the Organization shall perform in accordance with Article 16-5, Paragraph 3 of the Law, which is applied mutatis mutandis to Article 29, Paragraph 3 of the Law:

- (i) Names or titles, address, and if they are juridical persons, the name of their representative who undergo the inspection;
- (ii) The name and address of the factory or place of business where the inspection is to be implemented;
- (iii) The date when the inspection is to be implemented;
- (iv) The place where the inspection is to be implemented;
- (v) Objects of the inspection; and
- (vi) Inspection methods.

**6.** The notification provided in the preceding paragraph shall be attached with copies of documents provided in the followings:

- (i) In the case that the adjunct facility of the reactor that has obtained approval in accordance with Article 27, Paragraph 1 of the Law is installed after decommissioning in accordance with the provision of Article 38, Paragraph 1 of the Law; the application etc. and their annexes; or
- (ii) The application provided in Article 3-15, Paragraph 1 and the documents concerning the notification provided in Paragraph 2 of the said article.

**3.** When any of the particulars described in the notification provided in Paragraph 1 has been altered, the Minister of Economy, Trade and Industry shall promptly notify the Organization of the alteration.

(Applying Mutatis Mutandis)

**Article 3-15-4.** The provision provided in Article 3-6-4 is applied mutatis mutandis to the periodic inspection of facilities provided in Article 29, Paragraph 1 of the Law. In the case, "Article 16-3, Paragraph 4 of the Law that is applied mutatis mutandis to Article 28, Paragraph 3 of the Law" shall be translated into "Article 16-5, Paragraph 4 of the Law that is applied mutatis mutandis to Article 29, Paragraph 3 of the Law".

(Certificate of Compliance for the Periodic Inspection of Facilities)

**Article 3-16.** If the results of the periodic inspection of facilities provided in Article 29, Paragraph 1 of the Law are decided to be acceptable, the Minister of Economy, Trade and Industry shall issue certificate of compliance concerning the periodic inspection of the facility.

(Technical Standards for the Periodic Inspection of Facilities)

**Article 3-17.** Technical standards for the performance provided in Article 29, Paragraph 2 of the Law shall be particulars provided in the followings:

- (i) The adjunct facilities of the reactor that have obtained approval in accordance with Article 27, Paragraph 1 of the Law after decommissioning in accordance with Article 38, Paragraph 1 of the Law;
  - A. The performance is in conformity with the technical standards provided in subparagraphs of Article 3-6; and
  - B. Capability for protecting leakage from the adjunct facilities of the reactor and other performances shall be maintained in the condition that the Minister of Economy, Trade and Industry decided the results for the Pre-service Inspection provided in Article 28 of the Law to be acceptable, or
- (ii) Nuclear Facilities other than the facilities provided in the preceding subparagraphs; Capability for protecting leakage from the Nuclear Facilities and other performances necessary to maintain after decommissioning shall be in conformity with the technical standards provided in Ordinance of Establishing Technical Standards for Nuclear Power Generation Equipment (Ordinance No. 62 of Ministry of International Trade and Industry, 1965).

(Operation Plan)

**Article 4.** The operation plan of the reactor as specified in Article 30 of the Law shall be prepared for each reactor, using Form 1, and the operation plan for three years starting from April 1 of the relevant year shall be submitted by January 31 of the year preceding the relevant year, every year after the year (each year from April 1 to March 31 of the following year, the same applying hereinafter) in which the scheduled day of operation commencement belongs.

**2.** The operation plan for the case where a reactor installation license, or a license for alteration under Article 26, Paragraph 1 of the Law is received between Feb.1 and March 31, and the operation is to be started within this time shall be submitted forthwith after the receipt of said license, notwithstanding the provision of the preceding paragraph.

**3.** When the operation plan under the preceding two paragraphs is changed, the changed operation plan shall be prepared using Form 1, and shall be submitted for each reactor, within 30 days from the day of the change.

**4.** The number of copies of the operation plan of the preceding paragraphs 3 shall be one original.

(Record)

**Article 7.**

(3) The record specified in Article 34 of the Law must be recorded for each reactor, regarding the subjects listed in the left column of the following table, in the manners specified in the middle column of the table, and shall be retained for the period specified in the right column of the table.

Contents to be recorded	Occasion of recording	Retention
(i)Reactor facility inspection record Result of periodical self inspection under Article 11	Each inspection	Until next inspection for the same subject
(ii) Operation record		
A. Thermal power, and the neutron flux density and temperature in the core	Continuous	10 years
B. Temperature, pressure and flow rate of coolant at reactor core inlet and outlet	Every 1 hour during operation	10 years
C. Position of control element	Every 1 hour during operation	1 year
D. Temperature within re-combiner	Every 1 hour during operation	1 year
E. Purity and daily makeup volume of coolant and moderator (liquid only) used in reactor	Once a day	1 year
F. Fuel assembly arrangement within reactor	Each arrangement or re-arrangement	10 years after removal
G. Reactor facility checking before and after start-up and shutdown	Each startup and shutdown	1 year
H. Day and hour of operation start, criticality attainment, operation change, emergency shutdown and operation shutdown	Each of these events	1 year
I. Names of operation supervisor and operator, their shift day and hour, and transferred message	Each operation start and shift	1 year
(iii) Record of fuel assembly		
A. Amount of received and shipped fuel assembly (except for spent fuel), by type	Each receiving and shipping	10 years
B. Amount of fuel assemblies loaded to the reactor, by type	Each loading	10 years after removal

C. Amount of spent fuel assemblies discharged, by type	Each removal	10 years
D. Burn-up of discharged spent fuel	Each discharge or once every month	10 years
E. Arrangement of fuel assemblies in spent fuel storage facility	Each arranging or rearranging	5 years
F. Amount of spent fuel shipped, by type, the period from discharge to shipping and their radioactivity.	Each shipping	10 years
G. Inspection result of fuel assembly shape or property	Before loading and after discharge	10 years after discharge
(iv) Radiation management record		
A. Dose equivalent rate at the radiation shield side wall of reactor core, spent fuel storage facility, radioactive waste disposal facility, etc.	Once a day during operation	10 years
B. Mean concentration of radioactive substance for one day and 3 months, at radioactive waste vent port or exhaust monitor equipment and drain port or drain monitoring equipment	Once a day for daily mean concentration, and once in 3 months for 3-month mean concentration	10 years
C. One-week dose equivalent of the external radiation in the control zone, mean 1-week concentration of radioactive substance in the air, and radioactive substance concentration on the surface of radioactive contaminated matter	Once a week	10 years
D. One-year dose of personnel engaged in radiation work starting from April 1. For female personnel engaged in radiation work (except those who diagnosed as sterility and those who notified will for no pregnancy to the reactor establisher with document the same applying hereinafter) for 3 months starting from April 1, July 1, October 1 and January 1. And one month dose of female personnel engaged in radiation work whose pregnancy is known by the reactor establisher through the notification of the pregnant female herself starting from the first day of the every month until the delivery.	Once a year for 1-year dose, once in 3 months for 3-month dose and 1 month for 1-month dose.	The period specified under Paragraph 5
E. Dose for the five years (including the year of the over exposure exceeding 20mSv starting April 1) specified by the Minister of Economy, Trade and Industry of the personnel engaged in radiation work.	Once a year for 5-years that the Minister of Economy, Trade and Industry specified (during the period after the year listed in the left column).	The period specified under Paragraph 5
F. Radiation exposure history of personnel engaged in radiation work prior to the day of starting the radiation management work, during the year in which said day belongs	At the time of the worker's starting said work	The period specified under Paragraph 5
G. Quantity, by type, of nuclear fuel material or objects contaminated by nuclear fuel material which is transported outside the plant or business place, the type of container used for their transport, and the day, time and route of the transport	Each transporting occasion	1 year
H. Type of radioactive waste delivered to waste facility or dumped into the sea, the quantity of radioactive substances contained in said radioactive waste. In case of radioactive waste contained in container, or solidified integrally with the container, quantity of said containers, specific gravity, damping day, time location and method.	Each occasion of disposal or dumping	Until the reactor dismantling

I	In case radioactive waste is sealed in or solidified together with containers, the method for them	Each sealing or solidifying	Reactor dismantling
J.	In case of taking measures for prevention of spreading and decontamination for radioactive substance, their conditions and the name of the person responsible for them	Each spreading prevention and decontamination	1 year
(v) Maintenance record			
A.	Patrolling and checking conditions of reactor facility, and the name of person in charge	Once a day	1 year
B.	Repairing condition of reactor facility, and the name of person in charge	Each repairing	1 year
(vi) Accident record of reactor facility, etc.			
A.	Day and hour of accident occurrence and restoration	Each event	Until the dismantling of reactor
B.	Conditions of and measures taken for accident	Each event	Until the dismantling of reactor
C.	Causes of accident	Each event	Until the dismantling of reactor
D.	Measure taken after accident	Each event	Until the reactor dismantling
(vii) Meteorological records			
A.	Wind direction and velocity	Continuous	10 years
B.	Precipitation	Continuous	10 years
C.	Atmospheric temperature	Continuous	10 years
(viii) Record of Safety Education			
A.	Implementation Plan of Safety Education	Every time planned	3 years
B.	Date and Item of Education implemented	Every time implemented	3 years
C.	The name of educated	Every time implemented	3 years

2. When direct measuring is difficult for the items to be recorded in accordance with the specifications in the preceding paragraph, those records that allow the measuring results to be estimated may be used instead of the record of these items.

3. The dose equivalent rate under A, Subparagraph (iv) in the table of Paragraph 1 and the dose equivalent under C and dose D and E of the same subparagraph shall be respectively recorded in accordance with the conditions specified by the Minister of Economy, Trade and Industry

4. In recording the dose for Subparagraph (iv), in the table of Paragraph 1, the condition of exposure and the method of measurement shall also be recorded, when, as a part of the radiation exposure records, the value exclusively related to the exposure caused by the respiration of the air contaminated by radioactive substances is recorded.

5. The retention period for the records under D to E, Subparagraph (iv) in the table of Paragraph 1 shall be the record retention period exceeded 5 years and the reactor establisher has submit the record to the organization specified by the Minister of Economy, Trade and Industry, or in case the person related to the retention of the record lost the status of a personnel engaged in radiation work.

6. The reactor establisher shall issue the copy of the record to the personnel engaged in radiation management work under D, Subparagraph (iv) in the table of Paragraph 1, when said worker leaves his duty assignment.

(Quality Assurance)

**Article 7-3.** In case of taking necessary actions for fitness for safety as provided in Article 35, Paragraph 1 of the Law (hereinafter referred to as “fitness-for-safety activity”), quality assurance plan shall be established, and fitness-for-safety activities shall be planed, implemented, evaluated and improved in accordance with the quality assurance plan, and the quality assurance plan shall be improved continuously.

(Quality Assurance Plan)

**Article 7-3-2.** Particulars provided for in the followings shall be stipulated in the quality assurance plan:

- (i) Particulars for organization to implement the quality assurance;
- (ii) Particulars for the plan of fitness-for-safety activities;
- (iii) Particulars for implementing fitness-for-safety activities;

- (iv) Particulars for evaluation of fitness-for-safety activities; and
- (v) Particulars for improvement of fitness-for-safety activities.

(Organization to Implement the Quality Assurance)

**Article 7-3-3.** The organization to implement the quality assurance shall fall under the followings:

- (i) Operated by the reactor establisher (in case of a juridical person, the representative);
- (ii) Responsibility and authority concerning quality assurance are defined; and
- (iii) The framework with which the quality assurance plan is developed, implemented, evaluated and improved continuously is established.

(Plan for Fitness-for-safety Activities)

**Article 7-3-4.** Particulars for fitness-for-safety activity plan in the quality assurance plan shall be particulars provided for in the followings:

- (i) Matters to clarify the processes of Japanese Industrial Standard Q9000 (2000) in accordance with Industrial Standardization Law (Law No. 185, 1949) and their mutual relation in fitness-for-safety activities;
- (ii) Matters to establish the framework with which fitness-for-safety activities are implemented taking in to consideration each process of planning, implementation, evaluation and improvement, and improved continuously;
- (iii) In case of materials or services are procured from outside, matters to establish measures for its management;
- (iv) Matters to determine contents to be implemented depending on their importance for fitness for safety;
- (v) Matters to develop procedures for appropriate management of documents and records concerning fitness-for-safety activities; and
- (vi) Matters to establish the education and training system necessary for persons who implement fitness-for-safety activities.

(Implementation of Fitness-for-safety Activity)

**Article 7-3-5.** Particulars for implementation of fitness-for-safety activities in quality assurance plan shall be particulars provided for in the followings:

- (i) Each individual work that consists of fitness-for-safety activities (hereinafter referred to as “individual work”) shall be carried out in accordance with the followings;
  - A. The implementing plan for individual work (hereinafter referred to as “implementing plan” in this article) shall be developed with clearly defined objectives for individual work and requirements for individual work,
  - B. Individual work shall be implemented in accordance with the implementing plan. In the case, it shall be confirmed in appropriate stages that the plan meets the requirements, and
  - C. If the implementing plan is altered, contents of alteration shall be managed properly.
- (ii) In case when materials or services are procured from outside, particulars necessary for appropriate procurement and managing measures for compliance to the said particulars shall be specified;
- (iii) In order to confirm that the individual work meets requirements specified in the implementing plan, necessary inspections and examinations shall be established and implemented;
- (iv) Persons who implement the inspections and examinations depending on the importance for the fitness for safety provided for in the preceding subparagraph shall be specified; and
- (v) Appropriate measures to manage the condition not conformity with the requirements (hereinafter referred to as “nonconformity”) shall be established.

(Evaluation for Fitness-for-safety Activity)

**Article 7-3-6.** Particulars for evaluation of fitness-for-safety activities in the quality assurance plan shall be particulars provided for in the followings:

- (i) Necessary monitoring and measurement of condition of fitness-for-safety activities shall be implemented in accordance with the plan;
- (ii) In order to make it clear that the fitness-for-safety activities are implemented properly, audit shall be implemented in accordance with the plan; and
- (iii) The evaluation described in the preceding subparagraph shall be implemented by the person other than the persons implemented the subject individual work.

(Improvement of Fitness-for-safety Activity)

**Article 7-3-7.** Particulars for improvement of fitness-for-safety activities in the quality assurance plan shall be particulars provided for in the followings:

- (i) Measures for corrective actions to prevent recurrence of nonconformity and measures for preventive actions to prevent potential nonconformity shall be established and implemented respectively;
- (ii) Information from other facilities shall be reflected on the preventive actions as well as information obtained implementing fitness-for-safety activities for establisher’s reactor facilities; and
- (iii) Results of the evaluation provided for in the preceding article shall be reflected properly.

(Prevention from Entering into Control Zones, Etc.)

**Article 8.** Pursuant to the provision of Article 35, Paragraph 1 of the Law, the reactor establisher shall set up control zones, the maintenance and repair areas and the environmental monitoring areas, and shall execute the measures specified under the following respective subparagraphs:

- (i) The following measures shall be taken for the control zones;
  - A. In addition to demarcating the area with walls, fences and other demarcation structures, the establisher shall distinguish

- the area clearly from other areas with the provision of signs, and shall take such measures as personal entry restriction and lock control, etc. in proportion to the level of hazard by radiation,
- B. The installer shall prohibit eating, drinking and smoking where there is a danger of the oral ingestion of radioactive substances,
  - C. The establisher shall take measures to ensure that the radioactive substance concentration on the surface of the floor, wall and other objects which are liable to come in contact with persons and which are contaminated by radioactive substances does not exceed the surface concentration limit specified by the Minister of Economy, Trade and Industry, and
  - D. For a person leaving or carrying objects out of the control zones, the installer shall take measures to assure that the concentration of radioactive substances on the surfaces of body of that person, of the cloths, footwear and other articles worn on the body, and of the articles to be carried (when the articles are contained in containers or packaged, the containers or the package) does not exceed one tenth of the surface concentration limit specified under C.
- (ii) For the maintenance and repair area, the establisher shall clearly distinguish the area from other areas through such methods as the installation of signs, and shall take such measures as the restriction of personal entry, the control of the locks and the restriction on the out-transport of articles, according to the control requirements; and
  - (iii) For the environmental monitoring area, the installer shall take the following measures;
    - A. The prohibition of the habitation of persons, and
    - B. The restriction of the entry of persons other than those who have duty assignments in the area, through such means as the installation of fences of signs, etc. However, this provision does not apply when it is obvious that there is no possibility of personal entry into the said area.

(Measures Related to Dose, Etc.)

**Article 9.** Pursuant to the provision of Article 35, Paragraph 1 of the Law, the reactor installer shall, with respect to the dose, etc., for the personnel engaged in radiation management work, take the measures listed under the following subparagraphs:

- (i) Measures for preventing the personnel engaged in radiation management work from exceeding the dose limit specified by Ministry of Economy, Trade and Industry; and
- (ii) Measures for preventing the concentration of radioactive substance in the air breathed by the personnel engaged in radiation work from exceeding the concentration limit specified by Ministry of Economy, Trade and Industry.

2. Notwithstanding the provision of the preceding paragraph, in the case of emergency without alternative recourse, such as the occurrence or potential occurrence of hazard in the reactor facility, and the occurrence of damage in the reactor facility which may seriously obstruct the operation of the reactor, the personnel engaged in radiation management work (for female workers only to those who diagnosed as sterility and those who notified will for no pregnancy to the reactor establisher with document ) may be made to perform emergency operations of which the dose equivalent does not exceed the dose equivalent limit specified by Ministry of Economy, Trade and Industry.

(The Patrol and Checking of Reactor Facility)

**Article 10.** Pursuant to the provision of Article 35, Paragraph 1 of the Law, the reactor establisher shall make personnel engaged in radiation management work who are normally attendant in the control zone works patrol on the reactor facility, at least once a day, and perform checking on the facilities and equipment items listed in the following items:

- (i) The reactor cooling system facilities;
- (ii) The control element drive equipment; and
- (iii) The power supply, water supply and drain, and ventilation facilities.

(Maintenance Management of Nuclear Facility)

**Article 11.** In accordance with Article 35, Paragraph 1 of the Law, reactor establisher shall take actions provided for in the followings concerning such measures as checkup, test, inspection, replacement, modification, repair and other necessary actions that are implemented for maintenance management of nuclear facility (hereinafter referred to as “maintenance management”):

- (i) Establishment of policies for maintenance management of nuclear facilities to maintain the performance of nuclear facilities described in the application for approval provided in Article 23, Paragraph 1 of the Law or application for approval of alteration provided in Article 26, Paragraph 1 of the Law and documents and their annexes that describe conditions for the approval in accordance with Article 62, Paragraph 1 of the Law;
- (ii) Establishment of objectives for maintenance that shall be achieved in accordance with the policy described in the preceding subparagraph;
- (iii) Development of the maintenance management implementation plan specifying particulars provided for in the following and implementation of them in accordance with the plan;
  - A. Particulars concerning the method, frequency and time for implementation of checkup, test, inspection, repair, modification, replacement, etc. of nuclear facilities,
  - B. Particulars concerning the method for confirmation and evaluation of the results of checkup, test, inspection, repair, modification, replacement, etc. of the nuclear facilities,
  - C. Particulars concerning corrective actions for the method, frequency and time for checkup, test, inspection, repair, modification, replacement, etc. of the nuclear facilities based on the results of confirmation and evaluation described in Item B, and
  - D. Particulars concerning records of the maintenance management of the nuclear facilities.
- (iv) The plan concerning policies, objectives and implementation of the maintenance management of nuclear facilities shall be periodically evaluated; and

- (v) The results of the evaluation provided for in the preceding subparagraph shall be reflected on the plan concerning policies, objectives and implementation of the maintenance management of nuclear facilities.

(The Operation of the Reactor)

**Article 12.** Pursuant to the provision of Article 35, Paragraph 1 of the Law, the reactor establisher shall take the measures related to the operation of the reactor as listed under the following subparagraphs:

- (i) Entrusting the operation of the reactor to persons who have necessary knowledge in the operation of reactors;
- (ii) Not allowing the operation of the reactor to start, unless all the constituent persons required for the operation of the reactor are present;
- (iii) Ensuring that the person responsible for operation among the constituent persons as mentioned under the preceding subparagraph is a receiver of a license from a party designated by the notice of Ministry of Economy, Trade and Industry;
- (iv) Specifying the matters to be confirmed before starting operation, the matters required for the procedure of operation and the matters to be confirmed after the interruption of operation, and making the operators observe them;
- (v) When an emergency shutdown occurs, investigating the cause of the shutdown and the possible presence of damage, and restarting operation shall be made after verifying the absence of conditions preventing the restarting of operation;
- (vi) Specifying the measures to be taken in an emergency, and making the operators observe them;
- (vii) When conducting a trial operation, allowing it to be conducted upon confirming its purpose and method, and the measures to be taken in an emergency; and
- (viii) When operating the reactor for the purpose of training trainees, specifying the matters to be observed by the trainees, and making the matters observed under the supervision of the operator.

(Storage)

**Article 14.** The reactor installer shall, pursuant to the provisions of Article 35, Paragraph 1 of the Law, take the measures related to the storage of nuclear fuel material, as listed under the following subparagraphs:

- (i) Nuclear fuel material shall be stored in storage facilities;
- (ii) At easily visible locations of the storage facilities, the cautions on storage shall be displayed;
- (iii) When persons other than those engaged in the storage of nuclear fuel material enter the storage facilities, they shall be made to obey the instructions of the persons engaged in the storage;
- (iv) Necessary measures of cooling shall be taken on spent fuel; and
- (v) Nuclear fuel material shall be stored in such a manner that under no circumstance, the nuclear fuel material reaches the criticality.

(Disposal Made at the Plant or Place of Business)

**Article 15.** The reactor establisher shall, pursuant to the provisions of Article 35, Paragraph 1 of the Law, in disposing the radioactive waste in the plant or place of business where reactor facility is installed, take the measures listed under the following subparagraphs:

- (iii) The disposal of radioactive waste shall be executed under the supervision of persons who possess the necessary knowledge in disposal and radiation protection related to disposal, and during the disposal process, the persons engaged in the said disposal process shall wear working cloths;
- (iv) When persons other than the persons engaged in the disposal of radioactive waste enter the disposal facility, they shall be made to obey the instructions of the persons engaged in the disposal;
- (v) Gaseous radioactive waste shall be disposed by any one of the following listed methods:
  - A. Discharging through a gas exhausting facility;
  - B. Storage-disposing in a disposal tank that is provided with an effect of hazard prevention;
- (vi) When disposing by the method A in the preceding paragraph, the concentration of the radioactive material in the exhaust gas shall be reduced as low as possible in the exhausting facility through such methods as filtration, the attenuation of radioactivity through the lapse of time and the dilution with large volume of air. In this case, the radioactive material concentration in the air outside the environmental monitoring area shall be maintained within the concentration limit specified by the Minister of Economy, Trade and Industry, through the monitoring of the concentration of radioactive material in the exhaust gas at the exhausting port or in the exhaust gas monitoring equipment;
- (vii) When disposing by the method B of Paragraph 3, if there is a possibility of excessive overheating by the decay heat, etc. of the said storage-disposed radioactive waste, necessary cooling measures shall be taken;
- (viii) Liquid radioactive waste shall be disposed by any of the following listed methods;
  - A. Discharging through an effluent facility,
  - B. Storage-disposing in a disposal tank that is provided with a hazard prevention effect,
  - C. Sealing in a container, or solidifying with a container into an integral mass, and storage disposing in a storage-disposal facility having a hazard prevention effect,
  - D. Incinerating in the incineration equipment possessing a hazard prevention effect, and
  - E. Solidifying in the solidifying equipment possessing a hazard prevention effect.
- (ix) When disposing by the method A in the preceding paragraph, the concentration of the radioactive material in the effluent shall be reduced as low as possible through such methods in the effluent facility as filtration, evaporation, adsorption by ion exchange resin, the attenuation of radioactivity through the lapse of time and the dilution with large volume of water. In this case, the radioactive material concentration in the water at the outside boundary of the environmental monitoring area shall be maintained within the concentration limit specified by the Minister of Economy, Trade and Industry, through the monitoring of the concentration of radioactive material in the effluent at the

- effluent discharge port or in the effluent monitoring equipment;
- (x) When disposing by the method B of Subparagraph (vi), if there is a possibility of excessive overheating by the decay heat, etc. of the said storage-disposed radioactive waste, necessary cooling measures shall be taken;
- (xi) When disposing by method C of Subparagraph (vi), in case the radioactive waste is to be sealed in a container, the said container shall meet the following listed criteria;
  - A. The structure shall be impermeable to water, resistant to corrosion, and highly leak-proof against radioactive waste,
  - B. Freedom from the possibility of cracking or breaking, and
  - C. The lid of the container shall be hard to be removed.
- (xii) When disposing by method C of Subparagraph (vi), in case the radioactive waste and the container are solidified integrally, the container integrally solidified with the radioactive waste shall be capable of preventing the scattering or leaking of the radioactive waste;
- (xiii) When disposing by method C of Subparagraph (vi), in case the radioactive waste is storage-disposed of in a storage-disposal facility provided with a hazard prevention effect, the following shall be observed;
  - A. When storage-disposing radioactive waste by sealing it in a container, necessary measures for preventing the diffusion of contamination through an eventual occurrence of cracking or breaking in the said container such as the enveloping of the said container in material that can absorb all the sealed radioactive waste, or the provision of a receiving saucer that can contain all the sealed radioactive waste shall be taken,
  - B. When there is a possibility of excessive overheating by the decay heat, etc. of the said storage-disposed radioactive waste, necessary cooling measures shall be taken,
  - C. On the container in which radioactive waste is sealed, or integrally solidified with solidified radioactive waste, a sign indicating radioactive waste shall be affixed, and a control number that allows the collation against the contents recorded on the basis of the provision of Article 7 with respect to the said radioactive waste shall be displayed, and
  - D. On the said storage-disposal facility, control cautions shall be displayed in the easily visible area.
- (xii) Solid radioactive waste shall be disposed by any of the following listed methods;
  - A. Incinerating in incineration equipment provided with a hazard prevention effect,
  - B. Sealing in a container, or solidifying integrally with the container, and storage-disposing in a storage-disposal facility provided with a hazard prevention effect,
  - C. Those radioactive wastes such as large machines that are very difficult to dispose by the method of B, or other radioactive waste that requires decay over long time shall be storage-disposed in a storage-disposal facility provided with a hazard prevention effect;
- (xiii) In the disposal method specified under B of Subparagraph (xii), when the radioactive waste is sealed in a container for disposal, the examples described under Subparagraph (ix) and Subparagraph (xi) (excluding A) shall be adopted;
- (xiv) In the disposal method specified under B of Subparagraph (xii), when the radioactive waste is solidified integrally with the container, the examples described under Subparagraph (x) and (xi) (excluding A) shall be adopted; and
- (xv) In the disposal method specified under C of Subparagraph (xii), the examples described under B and D of Subparagraph (xi) shall be adopted.

(Periodic Evaluation of Nuclear Facility)

**Article 15-2.** The reactor establisher shall take actions provided for in the followings for every reactor (excluding the reactor notified in accordance with Article 38, Paragraph 1 of the Law) and every period not exceeding 10 years in accordance with Article 35, Paragraph 1 of the Law:

- (i) Evaluation of the implementing situation of fitness-for-safety activities at the nuclear facilities; and
  - (ii) Evaluation of the situation of reflection of state of the art technical information on fitness-for-safety activities at the nuclear facilities.
2. The reactor establisher shall take actions provided for in the followings by the day elapsed 30 years from the date of initiation of reactor operation:
- (i) Technical evaluation for aging; and
  - (ii) Development of 10 years plan concerning actions taken for maintenance of the nuclear facilities based on the technical evaluation provided in the preceding subparagraph.
3. The evaluation and the plan provided for in the preceding subparagraph shall be reevaluated within a period not exceed 10 years.

(Operational Safety Program)

**Article 16.** Persons intending to have their Operational Safety Program approved under the provisions of Article 37, Paragraph 1 of the Law shall specify the Operational Safety Program for the particulars listed in the following subparagraphs, for each plant or business place, and shall submit an application describing them:

- (i) Matters pertaining to the duty assignment and organization of persons engaged in the operation and management of the nuclear reactor facility;
- (ii) Matters pertaining to the safety preservation education of persons engaged in the operation and management the nuclear reactor facility as described below;
  - A. Matters on implementation policy of the safety preservation education (including procedure of planning), and
  - B. Matters on the contents of the safety preservation education and as follows,
    - (1) Matters on related regulations and the safety preservation rule
    - (2) Matters on the structure, performances and the operation of the nuclear installation
    - (3) Matters on radiation management

- (4) Matters on the handling of nuclear fuel materials and materials contaminated by nuclear fuel material
  - (5) Matters on measures to be take at an emergency
  - (iii) Matters pertaining to the operation of the nuclear reactor facility;
  - (iv) Matters pertaining to the safety review of the operation of the nuclear reactor facility;
  - (v) Matters pertaining to the establishment of the control zone, the preservation area and the environmental monitoring area, and to the entry restrictions, etc. into these areas;
  - (vi) Matters pertaining to the ventilation monitoring equipment and drain monitoring equipment;
  - (vii) Matters pertaining to the monitoring of the dose and dose equivalent, the radioactive material concentration and the surface radioactive material concentration on objects contaminated by radioactive material, and to the decontamination;
  - (viii) Matters pertaining to the management of the radiation measuring instruments;
  - (ix) Matters pertaining to the patrolling and checking of the nuclear reactor facility, and their related measures;
  - (x) Matters pertaining to the receiving and shipping, transport, storage and other handling of nuclear fuel material;
  - (xi) Matters pertaining to the disposal of radioactive waste;
  - (xii) Matters pertaining to the measures to be taken in the case of emergency;
  - (xiii) Matters pertaining to the recording of matters related to the safety preservation (including compliance to fitness-for-safety rules of nuclear facilities) of the nuclear reactor facility;
  - (xiv) Matters pertaining to the maintenance management of nuclear facilities (excluding matters provided for in the followings);
  - (xv) Matters pertaining to the periodic evaluation of nuclear facilities;
  - (xvi) Matters pertaining to the quality assurance of nuclear facilities; and
  - (xvii) Other necessary matters related to the safety preservation of the nuclear reactor facility.
2. The number of copies of the application under the preceding paragraph shall be one original.

(Inspection of compliance to the Operational Safety Program)

**Article 16-2.** Inspection based on the provision of Article 37, Paragraph 5 shall be implemented quarterly.

2. Matters provided in Article 37, Paragraph 5 apply mutatis mutandis to such as of Article 12, Paragraph 6 that is provided by the order of Ministry of Economy, Trade and Industry are as follows:

- (i) Access to Office, the Factory or business place;
- (ii) Inspection of books, documents, facilities, components and other necessary items;
- (iii) Inquiry to employees and or related personnel; and
- (iv) Submission of nuclear source material, nuclear fuel material and the material contaminated by nuclear fuel material and other necessary sample (limited to the least necessary amount for testing).

(Assignment, Etc. of Chief Engineer of Reactors)

**Article 19.** Pursuant to the provisions of Article 40, Paragraph 1 of the Law, the appointment of a chief engineer of reactors shall be made for each reactor. However, for reactors of the same type in the same plant or business place, the appointment of one chief engineer of reactors to two or more reactors is acceptable.

2. The number of copies of the notification document to be submitted under the provision of Article 40, Paragraph 2 of the Law shall be one original.

(Measures in Emergency)

**Article 20.** Pursuant to the provisions of Article 64, Paragraph 1 of the Law, a reactor establisher shall take the emergency measures as provided in the following.

- (i) Wherein fire breaks out in the reactor facility, or wherein there is a possibility of fire reaching the reactor facility, to make every effort to extinguish the said fire or to prevent its expansion and, at the same time, to report the situation to the fire authorities.
- (ii) Wherein there is a possibility of transferring the nuclear fuel material to other locations, to transfer it to a safe location as necessary, and to prohibit the entry of persons other than those related by demarcating the periphery of the location with a rope, by installing signs, etc., and by stationing guards.
- (iii) Wherein there is a need to prevent the occurrence of radiation hazard, to warn persons present both within the reactor facility and its vicinity to evacuate.
- (iv) Wherein contamination by the nuclear fuel material has taken place, to prevent its expansion and to remove it speedily.
- (v) Wherein there are persons suffering or who may possibly suffer from radiation hazard, to take emergency measures such as their speedy rescue and evacuation.
- (vi) To take other necessary measures for the prevention of radiation hazards.

(Measures Accompanying Revocation of License)

**Article 23.** The reactor installer who has had their permission revoked in accordance with the provisions of Article 33 of the Law, the reactor establisher who has discontinued all the operation of the reactor, or in the case of dissolution or death of reactor establisher the liquidator or trustee in bankruptcy, or the person who is to take charge of the inheritance in the place of the inheritor of dead establisher in the case of the absence of succession pursuant to the provision of Article 31, Paragraph 1, or Article 32, Paragraph 1 of the Law, shall assign the nuclear fuel material, eliminate contamination, dispose the nuclear fuel material pursuant to the provisions of Article 66, Paragraph 1 of the Law, and shall deliver the radiation management record as specified under Article 7, Paragraph 1 to the organization specified by the Minister of Economy, Trade and Industry pursuant to Paragraph 4 of the said article.

2. The measures specified under the preceding paragraph shall be executed within 30 days from the day of the cancellation of the permission, the day of discontinuing all operation, or the day of dissolution or death.

(Collection of Reports)

**Article 24.** The reactor installer shall prepare a report in Form 2 for each plant or business place, covering the period as from April 1st of every year to March 31st of the subsequent year, in the case of the report on the dose equivalent on the radiation workers during one year, and the period as from April 1st of each year to September 30th, and as from October 1st to March 31st of the subsequent year, in the case of other reports, and shall submit them to the Minister of Economy, Trade and Industry, within one month after the lapse of the applicable period.

2. The reactor installer shall, in the case of coming under any of the following subparagraphs, report the case immediately, and report the situation and measures taken within 10 days:

- (i) When nuclear fuel material is stolen or its whereabouts is unknown;
- (ii) When a reactor is shut down by failure of a reactor facility or when it become necessary to shut down a reactor during operation, or when reactor power output changes more than 5%, or when reactor power output change of more than 5% is required. Except when it is one of the following and the establisher announced officially about the situation of the concerned failure;
  - A. When it occurs in the term of the periodic inspection provided in Article 54-1 of the Electricity Utilities Industry Law (Law No. 170, 1964) (limited to those equipment concerned to the failure, which functional and operational situation cannot be checked under the reactor shutdown condition),
  - B. When the failure does not cause deviation from the limit of operation (it is a requirement defined in the fitness-for-safety program for operation of the reactor facility, and when it cause any deviation from the concerned conditions the measure that the establisher should take is also defined in the fitness-for-safety program, the same in this paragraph), and there is no change observed related with the concerned failure, and when the establisher performs inspection of the failed equipment concerned, or
  - C. When the reactor output is required to follow the limit of operation.
- (iii) When a reactor establisher has checked the equipment and structure important to the safety of the nuclear reactor facility provided by the Minister of Economy, Trade and Industry (hereinafter called as "equipment etc. important to safety" in this paragraph as), and when concerned equipment etc. important to safety is considered that it does not satisfy the standard described in Article 9 or in Article 9-2 of the Ordinance of Establishing Technical Standards for Nuclear Power Generation Equipment (Ordinance No. 62 of Ministry of International Trade and Industry, 1965), or when it is considered that it does not have function to secure safety of the nuclear reactor facility;
- (iv) When there is a failure of equipment etc. important to safety by the fire. Excluding the concerned failure is due to the measure of fire extinguishing or prevention of the spread of fire;
- (v) Except for the preceding three subparagraphs, when deviation from the limit of operation by the failure of a the nuclear reactor facility (except those minor troubles which impact on operation of nuclear reactor is insignificant) is caused, or when the measure for the concerned deviation defined in the fitness-for-safety program is not implemented at the time of deviation from the limit of operation;
- (vi) When the failure of a reactor facility or occurrence of other unexpected situation is considered to have caused any trouble in the situation of discharge of gaseous radioactive wastes through the\_ventilation\_facility or in the situation of discharge of liquid radioactive wastes through the drainage facility;
- (vii) When the concentration of radioactive materials in the air outside the environment monitoring area exceeds the allowable limit in the case of discharge of gaseous radioactive wastes through the ventilation facility;
- (viii) When the concentration of radioactive materials in the water outside the environment monitoring area exceeds the allowable limit in the case of the discharge of liquid radioactive wastes through the drainage facility;
- (ix) When nuclear fuel materials or materials contaminated with nuclear fuel materials (hereinafter referred to as "nuclear fuel materials etc.") leak out of the control zone;
- (x) When nuclear fuel materials etc. leak within the control zone due to failure of a nuclear reactor facility or occurrence of other unexpected situation. However, this is not the case in any of the followings (except the case when new measures such as human entry restriction into the leakage-related place and key control have been taken or when the leaked substances have spread outside the control zone);
  - A. When revealed liquid nuclear fuel materials etc. do not spread out of the floodgate that is installed in the circumference of the equipment of the concerned leakage for prevention of leakage enlargement,
  - B. When the function of ventilation facility of the concerned area of the leakage is maintained properly at the time when gaseous nuclear fuel materials etc. leak, or
  - C. When the amount of radioactivity of the leaked nuclear fuel materials etc. is very little and when the degree of the leakage is minor.
- (xi) When the person who enters into the control zone suffered radiation exposure due to the failure of a nuclear reactor facility or occurrence of other unexpected situation, and when the effective dosage of concerned exposure exceeds or could exceeds five mSv for a personnel engaged in radiation work or 0.5 mSv for a person other than the personnel engaged in radiation work;
- (xii) When the dosage of personnel engaged in radiation work exceeds or could exceed the allowable dose limit; or
- (xiii) Other than those above subparagraphs, when persons are injured or could be injured in the nuclear reactor facility (except for what hospitalization medical treatment is not needed for other than radiation hazard).

3. The number of copies for the application described in Paragraph 1 shall be one original.

**(6) Notification for Radiation Dose Rate Limits, etc. Based on the Provisions of the Rules for Installation, Operation, etc. of Commercial Power Reactors(Excerpt)**  
*(Notification No. 187 issued by the Ministry of Economy, Trade and Industry, March 21, 2001)*

(Dose as Specified Item 4 of Paragraph 2 of Article 1 of Rules for Installation, Operation, etc. of Commercial Power Reactors)

**Article 2.** The dose, concentration, and density to be determined by the Minister of Economy, Trade and Industry, pursuant to Article 1, Paragraph 2, Item 4 of the Rules for Installation, Operation, etc. of Commercial Nuclear Power Reactors (hereafter referred as "the Rules"), shall be as follows.

- (i) For dose, 1.3mSvs per 3 months.
- (iii) For concentration, the average concentration in 3 months is one-tenth of the concentration limit determined in Article 7, Paragraph 1 through Paragraph 4.
- (iv) For density, one-tenth of the surface density limit determined in Article 5.

**2.** For the limit stipulated in the preceding paragraph, when both external radiation and radioactive materials must be considered, the limit is given by converting the 3-month average dose and concentration to their fractions to the values provided in Subparagraph 1 and Subparagraph 2 respectively. In this case, the dose and concentration shall be such that the sum of their fractions is less or equal to 1.

(Dose Limit provided in Article 1, Paragraph 2, Subparagraph 6 of the Rules)

**Article 3.** The dose limit to be determined by the Minister of Economy, Trade and Industry, pursuant to Article 1, Paragraph 2, Subparagraph 6 of the Rules, shall be as follows.

- (i) For effective dose equivalent, 1mSvs per year (one year start from April 1st).
- (ii) For skin and eye lens tissue dose equivalent, 50mSvs each per year.
- (iii) For eye lens tissue dose, 15mSvs each per year

**2.** In spite of provision of the Subparagraph 1 of the preceding paragraph, effective dose limit may be determined as 5mSvs when the Minister of Economy, Trade and Industry has so approved.

(Surface Density Limit)

**Article 5.** The surface density limits to be determined by the Minister of Economy, Trade and Industry, pursuant to Article 8, Paragraph 1, Subparagraph C of the Rules, shall be as indicated in annexed Table 1.

(Dose Limit for Personnel Engaged in Radiation Works)

**Article 6.** For the dose limits to be determined by the Minister of Economy, Trade and Industry, pursuant to Article 9, Paragraph 1, Subparagraph 1 of the Rules, the effective dose shall be as follows.

- (i) Five years determined in Article 4, Paragraph 3, 500mSvs.
- (ii) 50mSvs per year.
- (iii) For female (except for those who diagnosed as sterility and those who notified will for no pregnancy to the reactor establisher with document and those who are specified in next Paragraph), 5mSvs per three-month starting April 1, July 1, October 1 and January 1, except for determined in two preceding subparagraphs
- (iv) For the pregnant female, 1mSvs for internal exposure during the time of the reactor establisher noticed the pregnancy by the notification of the worker herself to the delivery, in addition to the provision of Subparagraph 1 and Subparagraph 2.

**2.** For the dose limits to be determined by the Minister of Economy, Trade and Industry, pursuant to Article 9, Paragraph 1, Subparagraph 1 of the Rules, the effective dose equivalent shall be as follows.

- (i) For eye lens, 150mSvs per year.
- (iv) For skins, 500mSvs per year.
- (v) For abdominal region of pregnant female worker specified in Subparagraph (iv) of the preceding Paragraph, 2mSvs during the time in the preceding Paragraph.

(Concentration Limit for Personnel Engaged in Radiation Works)

**Article 7.** For the concentration limits to be determined by the Minister of Economy, Trade and Industry, pursuant to Article 9, Paragraph 1, Subparagraph (ii) of the Rules, the average concentration for three-month shall be as follows.

- (i) When the type of radioactive materials (Shown in annex Table 2. The same applies in next and the third Paragraphs) is known, and that is only one type, the concentration given in the fourth column of annexed Table 2, for the type of radioactive materials listed in the first column of that table.
- (ii) When the type of radioactive materials is known, and there are more than two types, the concentration whose sum of the ratios of the concentration of each radioactive material to the concentration of radioactive material given in the preceding paragraph become unity is the concentration of each radioactive material.
- (iii) When the type of radioactive material is not known, the least concentration given in the fourth column of annexed Table 2 (except those type of radioactive materials whose non existence in air is clear.).
- (iv) When the type of radioactive material is known, and the type of the radioactive material is not included in annexed Table 2, the concentration of the second column in accordance with the division shown in the first column of the annexed Table 3.
- (v) When there are risks of both external radiation exposure and inhalation of airborne radioactivity, the concentration of radioactive materials shall be such that the sum of its fraction of the effective dose equivalent for a year by exposure

from external radiation (hereinafter referred to as “external exposure”) to 50mSvs, and the fraction of airborne radioactive materials concentration to that provided in the preceding paragraphs, is less or equal to 1.

(Dose Equivalent Limit in Emergency Work)

**Article 8.** Dose limits to be determined by the Minister of Economy, Trade and Industry, pursuant to Article 9, Paragraph 2 of the Rules, is 100mSvs in effective dose equivalent.

(Concentration Limit at Outside of Environmental Monitoring Area)

**Article 9.** The concentration limit to be determined by the Minister of Economy, Trade and Industry, pursuant to Article 15, Paragraph 4 and Paragraph 7 of the Rules, shall be as follows in average of three-month:

- (i) When the type of radioactive materials (that given in annexed Table 2, the same applying in the following paragraphs and the third paragraphs and next Item paragraph 1 to 3) is known and that is only one type, concentration in air given in the column 5 of annexed Table 2, and that in water given in the column 6, for respective type of radioactivity;
- (ii) When the types of radioactive materials are known and there are more than 2 different types of radioactive materials in water or in air, the concentrations of radioactive materials shall be such that the sum of their fractions to the respective concentrations provided in the preceding paragraphs, is less or equal to 1;
- (iii) When the type of radioactive materials is unknown, the minimum concentration given in the column 5 of annexed Table 2 (except those type of radioactive materials whose non existence in air is clear.) for air and in the column 6 for water, respectively;
- (iv) When the type of radioactive material is known, and the type of the radioactive material is not included in annexed Table 2, the concentration of the third column for in air and the fourth column for in water, in accordance with the division shown in the first column of the annexed Table 3;
- (v) When radioactive materials exist in water and in air and there are risks of both inhalation and oral intake, concentrations of radioactive materials in water and in air shall be such that the sum of their fractions to the respective concentrations provided in the 1<sup>st</sup>, 3<sup>rd</sup> and precedent paragraphs, is less or equal to 1; and
- (vi) When there are risks of both external radiation exposure and inhalation of radioactive materials in air or in water, the concentration of radioactive materials shall be such that the sum of its fraction of the effective dose equivalent for a year by external exposure to 1mSv, and the fraction of concentration for radioactive materials in air or in water to that provided in the preceding paragraphs, is less or equal to 1.

3. The provision of the preceding Paragraph 2 shall not be applied, if the Minister of Economy, Trade and Industry approved in accordance with Article 3, Paragraph 2.

Annexed Table 1 (in relation to Article 5)

Division	Limit on Density (Bq/cm <sup>2</sup> )
Radioactive material that emits alpha particles	4
Radioactive material that does not emit alpha particles	40